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**AMERICAN**

# **SURVIVAL**

**THE MAGAZINE FOR SAFER LIVING**

FEBRUARY 1989 VOLUME 11 NUMBER 2  
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**CLASSIC**

**.357 MAGNUMS:**

**S&W Model 686, Colt Python**



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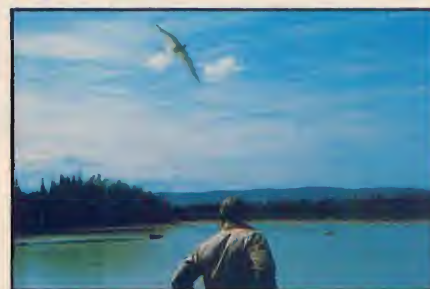
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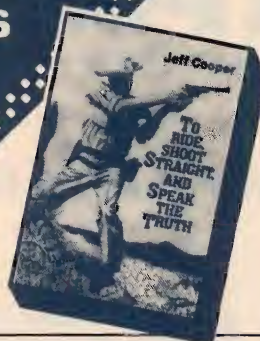
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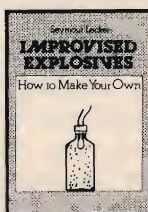
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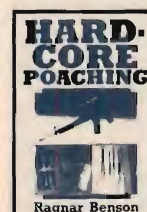
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# TO THE POINT

*Our new president and the nation's future...*

**N**OW that the presidential election is over and George Bush — the winner by a clear and strong majority of votes — is our new president, how will his leadership affect the country's future and its role in world affairs? He will be able to make decisions and institute policies that could profoundly affect our nation's military and economic strength and have significant impact on political and social affairs in the United States and the rest of the world.

Is George Bush the right man for the job? Only time will tell, but in my opinion, the voters made the right choice in selecting him over the liberal Democrat Michael Dukakis who struck me as an advocate of a socialistic welfare state, borders on being a pacifist on national defense matters and who opposes public gun ownership.

Our predominantly liberal-left news media gave Bush and his running mate Dan Quayle a hard time from the beginning of the presidential campaign and right up through the election. Its liberal minions constantly sniped at Bush and attacked his credibility, contending he is a "wimp," that he is merely a lackey for President Ronald Reagan with no new or meaningful ideas or policies for running the nation.

Typical of such rhetoric is an editorial that appeared in the *Los Angeles Times* the day after the election. Bush, the *Times* proclaimed, "faces the daunting task of pulling the nation together. . . . The election of 1988 was won not with honor or distinction, or by attracting voters to any vision or program for the future. George Bush got to the presidency by doggedness and not a little nastiness, abetted by the ineptitude of Michael S. Dukakis' campaign. . . . Bush's forces will claim a mandate from Tuesday's (Nov. 8) victory, but there is no mandate beyond his campaign-driven pledge not to raise taxes."

The facts are that Bush was the clear and decisive winner in the election and all the whining of the lib-

erals can't change that. He crushed Dukakis with electoral votes and had a popular vote lead over Dukakis of something like 7 million. The pundits tried to make a big deal out of the fact that only about half of the eligible voters actually voted in the election, but only about half of those eligible to vote have actually voted in our recent presidential elections. For the approximately 90 million people who did vote in this election, the overwhelming choice was George Bush.

Bush, who was much more specific and outspoken than the liberal Dukakis on such issues as national defense, gun control, taxation and other important issues, is far from the inept, visionless Reagan protégé his detractors try to portray him as being.

And they claimed Bush is a "wimp" but he won the Distinguished Flying Cross during World War II. They declared he was a mud slinger during the campaign but ignored the caustic criticism leveled at Bush by Dukakis. They tried to convince the voters (brainwash would be a more appropriate term) that Bush was not competent enough to be president, but the voters obviously rejected that assertion.

Bush made it clear during the campaign that he supports the right of citizens to own guns. He supports a strong national defense, including our national Strategic Defense Initiative (Star Wars). He believes in children reciting the pledge of allegiance to the flag in schools. He opposes higher income taxes and welfare solutions to social problems. He wants a clean, healthy environment and effective educational programs for our children.

In short, George Bush does indeed have ideas, plenty of them, on how he should lead the country. He expressed those ideas to the voters and they chose him as their leader. What remains now is for Bush to carry out his mandate from the voters, to fulfill his promises and campaign pledges and be the president he said he would be — *Jim Benson.*



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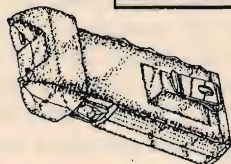
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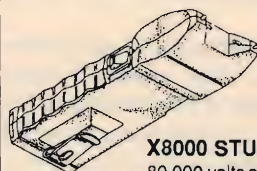


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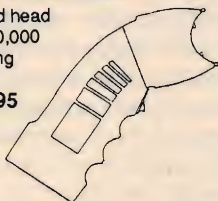


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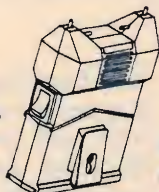
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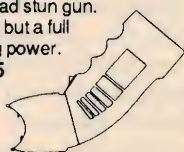
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# SURVIVAL LINE

*Computer virus attacks expected to increase, U.S. military opens new anti-terrorist bomb disposal school, donating & storing your own blood is popular, Maryland voters uphold gun ban...*

**T**HE computer virus which recently struck some 6,000 computers belonging to the Department of Defense and major research universities may be just the tip of the iceberg, with many more such attacks yet to come. "Do not think the worst has occurred... within the next two years there are viruses that would make this thing look like child's play," so says John McAfee, president of InterPath Corp., a computer security firm.

Computer viruses are small unauthorized programs within larger programs. They are designed to disrupt the normal functioning of a computer system. Depending upon the intent of the programmer who creates it, a computer virus can do anything from flashing a nonsense message on an operator's screen, to shutting down an entire system. In the worst case a virus can destroy all the data within a computer's memory, or cause the computer to take an unauthorized action. Because computer viruses are designed to spread from one system to another through telephone-linked computer networks, the destructive potential of a virus is immense.

While computer systems are vital to the national defense, and those containing classified material are thought to be relatively secure against an outside virus attack, other systems upon which we all depend appear to be far more vulnerable. A virus attack upon, for instance, the computers which run the nation's air traffic control system, or those used by the banking and financial systems, could have catastrophic consequences.

**Ounce of Prevention** — In response to what is perceived as a growing terrorist threat, the U.S. military has opened its second bomb-disposal school. The school, located at Elgin Air Force

Base in Florida, will, like its counterpart in Indian Head, Maryland, train technicians from all branches of the U.S. military in the latest bomb disposal techniques. The head of the school, Lt. Cmdr. H.F. Mixner said the new \$18.6 million training center was a response to "the growing threat of international terrorism." The school is expected to double the number of available military bomb disposal technicians.

**Transfusing Yourself** — Back in Nov. 1986, Survival Line reported that, because of the fear of contracting AIDS from a blood transfusion, growing numbers of people facing elective surgery had begun to donate and store their own blood for use during surgery.

Since our initial report, the practice of donating and storing your own blood and plasma for your use at a later time (known technically as autologous donation), has become widespread around the country. Such autologous donations now account for 5 percent (or almost 500,000 units) of all the blood donations made each year in the U.S.

**Gun Ban Approved** — In what can only be termed a major defeat for the NRA and pro-gun lobby, voters in Maryland last November voted to retain a law which bans the possession or manufacture of so-called Saturday Night Specials.

Scheduled to take effect on Jan. 1, 1990, the law calls for the creation of a commission which will decide which handguns fall into the Saturday Night Special category.

Citing the outcome of the Maryland referendum, gun control advocate John Russo, a New Jersey State Senator, said the vote "can only serve as a catalyst for efforts to enact stricter gun-control legislation in New Jersey and other states." ●





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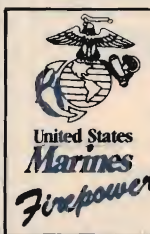
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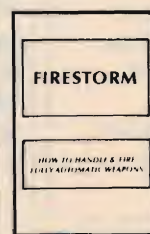
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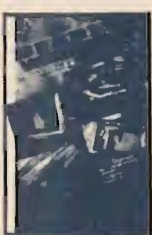
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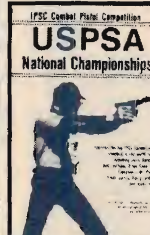
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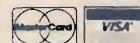
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# PAINTBALL



## COMBAT



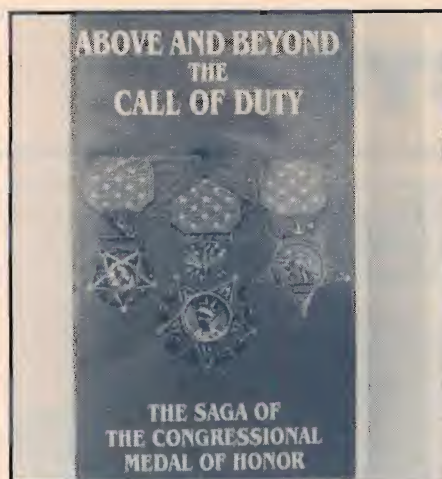
Paintball wargames, the sport of “weekend warriors”, is no longer considered a fad for rambo crazies, but is becoming an established sport with tournaments and large cash prizes. Companies and businesses are fielding teams as if they were softball or bowling leagues, and even women are enjoying the fast action and the realism of paintball combat. *Paintball Combat* is a primer covering all aspects of the game: rules, types of games, camouflage, tactics, safety and the most up to date equipment available. The book is useful for rookies and veterans, with tips for individual players and strategies for organized teams.



German Army soldiers re-enact combat exploits for this fascinating and frightening training film made by the Nazis during World War II. You will see German troops battling Soviet tanks with a wide variety of infantry weapons in a film that is well done realistic. *Engineers To The Front* is another dramatic and well done training film for German troops in which engineer/soldiers show how they pave the way for the Nazi blitzkrieg by lifting mines, building bridges, force river crossings under fire and eliminate bunkers with flame throwers and explosives. Send for free catalog of more than 300 video tapes of military and political history and foreign films (with English voice-over and subtitles), including *Sniper*, *The Invisible Enemy*, a 67-minute WW II German troop training film on sniping techniques.

A complete book on the art of sniping from a shooter's point of view. Tips on windage, target interdiction, light mirage effects, temperature, human targeting and trajectory tables. The back portion of the book is made up of range cards, firing data tables and a sniper briefing question sheet.





**Above and Beyond the Call of Duty,** The Saga of The Congressional Medal of Honor; video tape, VHS only; Bridge-stone Production Group, Dept. ASG, 1991 Village Park Way, Suite 180, Encinitas, CA 92024; (619) 943-9200 or (800) 523-0988; \$49.95.

"I used to carry a sandbag full of grenades on my back. I carried that sandbag of grenades everywhere I went, and I carried about 40 magazines of M16 rounds. And in that three hours (of action) I used about everything..." — Ken Stumpf. Date of Action: 25 April 1967. Location: Near Duc Pho, Vietnam... "It was all hand to hand combat. And in two seconds you could get a bayonet through your throat, be blown up with a hand grenade or be cut down by machine gun fire, rifle fire, even pistol fire. Or even be knifed, which happened." — Mitchell Paige. Date of Action: 26 October, 1942. Location: Guadalcanal... "The Chinese... and the North Koreans had that hill zeroed with mortar, artillery... It was just awful... We routed 'em and killed a bunch of 'em... I was told later they counted 119. I didn't count anything. I was just glad to clear the hill." — Lloyd "Scooter" Burke. Date of Action: 28 October, 1951. Location: Near Chong-Dong, Korea. These are some of the comments from interviews with recipients of the Medal of Honor, "the highest tribute that can be bestowed upon an American." It is presented "... For gallantry and intrepidity at the risk of life, above and beyond the call of duty." Here for the first time on film is the fascinating history of this nation's supreme award for heroism under fire, combining rare combat footage and exclusive interviews with recipients who relate what they were thinking and what motivated them as they performed awe-inspiring feats of heroism.

(Continued on page 63)

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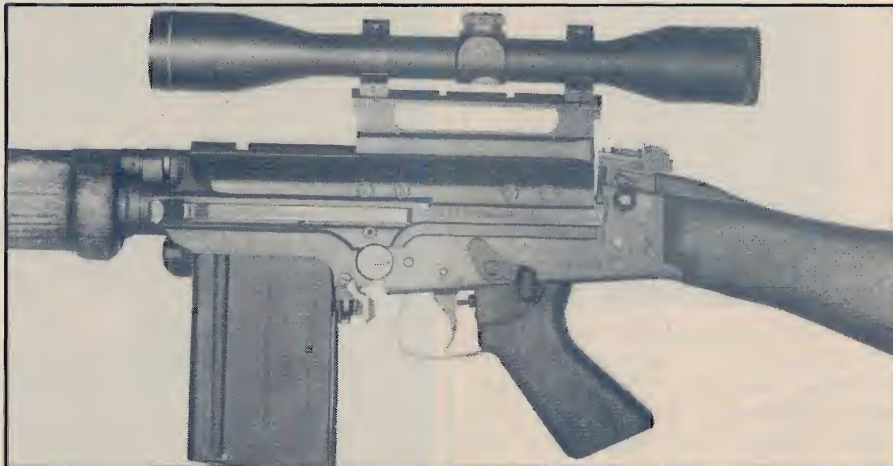
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# NEW PRODUCTS

## NATO Stanag To Weaver Adapter

B-Square now makes an adapter base for the popular European NATO Stanag scope mount system so that standard dovetail (Weaver type) rings can be used. The B-Square adapter base fastens to the Stanag mount with the two standard 6M Stanag scope attach screws. Lock screws secure the attach screws. The NATO Stanag to Weaver base is only \$39.95 (suggested list) complete with attach screws, lock screws and wrenches. They are available at dealers everywhere, or contact B-Square, Dept. ASG, P.O. Box 11281, Ft. Worth, TX 76110-0281.



## Infrared Filter Lenses

Sierra Supply has new military spec infrared filters designed to be used with first and second generation starlight and infrared goggles and other night vision equipment. These are new and designed for the civilian market. Four filters are available and you can buy one or more or all four as a set. The first size fits the Mini-Mag-lite flashlight and is .9 inch in diameter and costs \$17 postpaid. The second is for standard Mag-Lite and is 2.02 inches across and is \$25.95 postpaid. Filter #3 is for spotlights, is 5<sup>3</sup>/<sub>8</sub> inches diameter and sells for \$38 postpaid. Filter #4 fits standard vehicle headlights. It measures 4<sup>5</sup>/<sub>8</sub> inches across and is \$28 postpaid. If you are not satisfied with these filters, return them in the same condition sent within 14 days of purchase for a full refund from Sierra Supply, Dept. ASG, P.O. Box 1390, Durango, CO 81302; (303) 259-1822.



## Streetloader

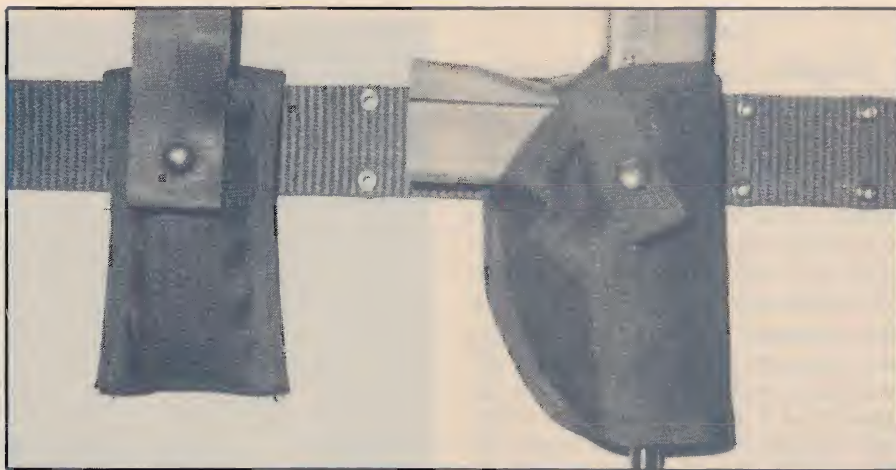
Now police, security guards and others can pack backup firepower without bulky speedloaders, pouches or loose cartridges in pockets. The new, unique Streetloader grip stores and dispenses six .38/.357 rounds safely and ready for instant loading. The rugged hinged buttplate opens to allow loading 1, 2 or 3 rounds at once. Topping off is easy. Outer garments cannot interfere with access. The Streetloader grip is speedloader relieved. Homeowners who want protection with the ultimate in safety where small children are present may load only the grip

and charge the cylinder in seconds when the need arises. The black pebblegrain finish is semi-soft ABS thermoplastic and provides a positive, non-slip handhold with orthopedic finger grooves and is fully recurved at the front base and upper backstrap, contributing to quick rapid-fire recovery even with magnum loads. The Streetloader grip fits S&W Models K and L, both round and square butt, without frame modification. Size is no greater than factory grips. Suggested retail price is \$38.50. Logan Security Products Company, Dept. ASG, Box 16206, Columbus, OH 43216.



### Hip Holsters, Mag Pouches

Hip holsters and high capacity magazine pouches are now available for MAC 10, MAC 11, MAC 11/9mm and UZI pistols. They are made of Dupont Cordura nylon fabric and military specification thread, webbing and hardware. They will fit belts up to 2¼-inches wide including the G.I. pistol belt. Holsters are available right or left hand for \$14.95 each. The mag pouches are \$9.95 each. Order from FMCO, Dept. ASG, 1008 Hiller Road, Building 2, McKinleyville, CA 95521 (telephone 707-839-1256). Include \$5 for S&H per order.



### Deluxe Combo Sheath

Will hold Mini Mag-Lite, folding U.S. military pocket knife, pen and E.M.T. shears. Made of black webbed polypropylene nylon with velcro closures and adjustable front cover. Will fit any belt size. Water, oil and mildew resistant. Available by itself or in combo with Mini Mag-Lite, E.M.T. shears and U.S. military folding knife. Price is \$8.95 postpaid for the sheath only and \$34.95 plus \$2 S&H for the sheath and equipment. Order from SI, Dept. ASG, 15600 S. Figueroa St., Gardena, CA 90248; toll free outside California (800) 533-7415; in California (213) 324-8855 or 8859.

### Titan Tigress

The Titan Tigress is a designer-styled .25 ACP pistol for women with fashion as well as self protection in mind. A gleaming 14-Karat gold finish contrasts with the deep, dark blue. Faux ivory grip panels are complemented with a long-stemmed red rose, individually carved and bearing the signature of the artist. This impeccable design is then encased in a shimmering gold lame zippered pouch in a petite size. Barrel length is 2½ inches, overall length is 4⅝ inches, height is 3¼ inches, weight is 12 ounces. The Tigress has six shots and is semiautomatic short recoil with ramped front and fixed rear sights and trigger block safety. Suggested retail price is \$155. For more information see your gun dealer or contact F.I.E. Corp., Dept. ASG, P.O. Box 4866, Hialeah, FL 33014; (305) 685-5966.





# NEW PRODUCTS

## L.A.W. Boots

Brigade's lightweight all-weather Gore-Tex sealed boots were developed for and proven in use by America's elite SWAT teams. These boots are guaranteed waterproof by Danner Boots. The sealed inner bootie liner is made of Cambrelle shoe lining backed by  $\frac{1}{16}$ -inch open cell foam to which a Gore-Tex membrane is laminated. No moisture can enter the liner—your feet stay dry and cozy, yet they breathe for all-weather comfort. Mildew and rot are prevented. L.A.W. boots are two thirds the weight of full leather boots. No break-in period is required. Vibram crepe outsoles provide positive traction and terrain feel in all conditions. The non-marking, non-skid sole does not collect mud. Excellent for quiet tramping, work and outdoor wear. Retail price is \$119.95 per pair. For a catalog with the L.A.W. boots and hundreds of other survival products, send \$1 to Brigade Quartermasters, Ltd., 1025 Cobb International Blvd., Dept. 91G, Kennesaw, GA 30144-4349.



## Dry Storage System

The Dry Top storage system jars keep your grains, seeds, snacks, herbs, beans and other foods dry and fresh and extends shelf life. They can also be used to store moisture-sensitive items like ammunition or medicine. Each jar cap contains non-toxic desiccating silica gel crystals and is reusable by drying in the oven or microwave. One gallon plastic jar with lid is \$11.95 plus \$2 S&H. One half gallon plastic jar with lid is \$9.95 plus \$2 S&H. Set of four one gallon jars \$49.95 postpaid. Set of six half gallon jars \$59.95 postpaid from Survival Center Inc., Dept. ASG, Box 707, Ravenna, OH 44266; call toll free (800) 321-2900; in Ohio call (216) 678-4000.

## Mil Spec Rappelling Rope

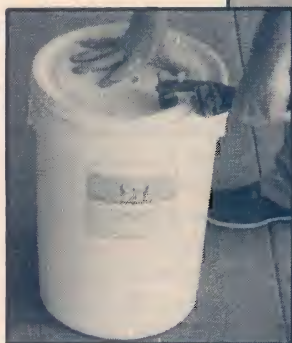
New, top quality, military specification, pre-cut to 120-foot length, green rappelling line is available from SI. UIAA approved, the line is OD green and  $\frac{7}{16}$ -inch thick. Perfect for rappelling use by paramedics, police, fire personnel and others or if you just need some of the best rope available for non-emergency use. Only \$39.95 plus \$4.50 S&H from SI, Dept. ASG, 15600 S. Figueroa St., Gardena, CA 90248; call toll free outside California (800) 533-7415; in California call (213) 324-8855 or 8859.



## Slingshot/Bow

Now you can shoot long or short arrows from your slingshot with the Arrow Adapter. Simply attach it to your slingshot and you're ready to use it for target practice, competition, hunting and survival. Price is \$4 from Stack Enterprises, Dept. ASG, Box 6081, Lincoln, NE 68506.





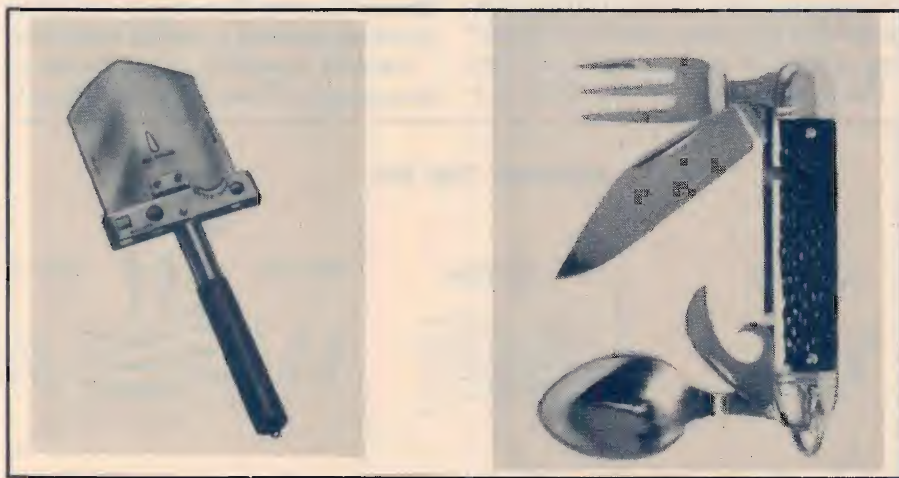
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# Be Your Own Weather Forecaster

By Carl H. Yaeger

**B**AD weather has traditionally been the cause of many disappointments of back country trips, sleepless nights in inadequate sleeping bags, and even injury and death directly or indirectly.

Yet nature never sneaks up on the alert survivalist. In most cases, there are hours of warning given through weather signs. The trick is, being able to recognize these signs and use them to advantage.

With the advent of new synthetic insulators such as Quallofil and other similar materials, and ultra-light back packs and camping gear, even winter is rapidly becoming "another season" to enjoy in the back country.

The best source of weather information is, of course, the local television or radio station, and most weather reporters will give five-day forecasts. If, however, one finds himself in a survival crisis situation when the radio and TV stations are off the air, then becoming alert to weather conditions and being more sensitive to nature's warning signs of changing weather patterns could be literally a matter of life and death.

Our atmosphere is made up of many gases, predominately oxygen and nitrogen. The atmosphere is a thick, 1,000-mile layer of air which surrounds the earth. However, more than 90 percent of the atmosphere is contained in the first 25,000 feet above the earth's surface.

The atmosphere consists of five outer levels from the earth's surface: 1. The troposphere is about seven miles thick and is wider at the equator than at the poles. 2. The tropopause is the boundary between the troposphere and the stratosphere. 3. The stratosphere extends to about 30 miles above the earth's crust. 4. The mesosphere ex-

tends to approximately 50 miles above the earth. 5. The thermosphere rises to a level of about 500 miles above the earth's surface.

The troposphere is that area which people most commonly refer to as the "atmosphere." It is this layer of air which regulates the temperature of the earth and in turn, creates the air movement of the winds.

The earth itself is heated by the sun and is cooled by the air that surrounds it. The air itself is not heated from solar energy, in fact, solar heat is absorbed by the earth's surface and in turn heats the air, or atmosphere on the earth's surface by radiation.

This heating and cooling of the earth's surface causes the air to rise when heated or drop when cooled and creates breezes or winds in the process. It is a fact that water absorbs a greater amount of the sun's energy than does the land surface; hence, there is a

greater probability of breezes or winds around large bodies of water. The atmosphere is subjected to many variables and forces which create erratic weather patterns.

When planning an outdoor experience such as hiking, climbing, boating, or cycling, the frost chill, wind chill, or high temperatures need to be considered in planning the trip. One more rule to keep in mind is: temperatures below 1 degree C. (Celsius) or 34 degrees F. (Fahrenheit), and above 25 degrees C. or 75 degrees F. must be considered within your plans. Not to plan around these highs and lows could invite injury or even death.

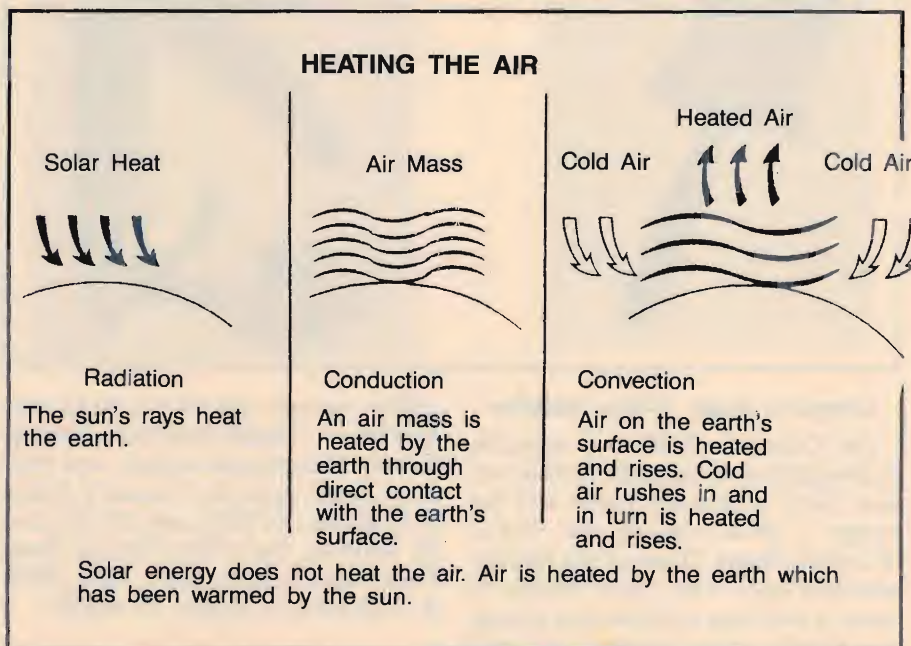
Humidity is water vapor held in the atmosphere. The bubble of air of atmosphere that surrounds the earth always contains a percentage of water vapor and with temperature changes, water vapor condenses. The point at which water vapor condenses is called the dew point.

When the air has more water vapor than it can hold, the surplus condenses into various types of weather — dew, fog, rain, snow, or clouds.

The atmosphere can only absorb so much water vapor and when it can hold no more, the air is said to be saturated. Warm air can absorb much more water vapor than cold air.

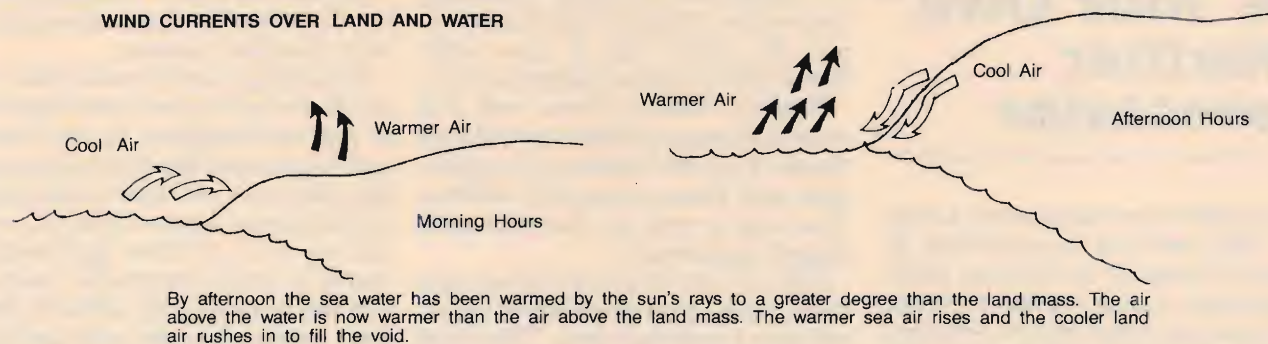
When hiking, cycling, or working out in warm, saturated air, one is subject to heat stroke because the air is too full of water vapor to absorb any more moisture and perspiration cannot evaporate from the skin which results in reducing the body's cooling capability.

Relative humidity is expressed in percentages. When the temperature is





## WIND CURRENTS OVER LAND AND WATER



high and the humidity is above 75 percent, the atmosphere is muggy and sticky. When the atmosphere has a high humidity (air holds a high percentage of water vapor), and the temperature drops, the air is cooled until there is a condensation. As air cools or warms, it tends to move. Cold air sinks and warm air rises. This brings us to the next weather force... the wind.

**Moving Air** — Wind is simply the movement of air and is measured in speed and direction. As air is heated by the earth's surface, (radiation), it rises and moves. A low pressure is created when warm air rises and cold air rushes in to fill the void.

The morning sun warms the land faster than it warms the waters. Consequently, the air above the water is cooler than the air above the land mass. The warmer land air rises, creating a void and the cooler sea air rushes in to fill the space. The result is cool sea or lake breezes during the morning hours.

Pressure is defined as the weight of the air (atmosphere) on the earth at sea level, and that is about 14 pounds per square inch.

There are two basic rules regarding pressure: 1. Falling pressure indicates coming bad weather. 2. Rising pressure indicates good weather.

Pressure is measured in **BARS** and the instrument which measures pressure is a barometer. Each bar is divided into millibars (mb) and the normal air pressure at sea level is 1,013 mb.

One important note here: pressure falls about one mb every 30 feet of altitude gained, hence, at 3,000 feet above sea level, the pressure is 900 mb. As altitude increases from sea level, the air pressure will drop. A barometer must be adjusted to the altitude for a given geographical area.

Barometers are calibrated in inches of mercury and 29.9 inches of mercury is equal to 1,013 mb, both indicate nor-

mal pressure.

When the barometer rises to 30 inches of mercury or falls to 28 inches of mercury, look for changes in the weather. Points of equal pressure are connected on a weather map by lines called isobars.

The winds of a low pressure front will blow in a counter-clockwise direction in the Northern Hemisphere and in a clockwise direction in the Southern Hemisphere. Low pressures are usually accompanied by strong winds, precipitation, lower temperatures, cloudiness, and generally unsettled weather patterns. Low pressure systems usually move from west to north in an easterly direction at about 25 miles an hour. A cloud sequence which usually precedes a cold front or low pressure cell is very high cirrus clouds forming 18-24 hours in advance of the approaching low pressure followed by stratus clouds which will finally drop to 8,000 feet elevation and produce the grey, dreary, typical wintry stormy day. About this time, moisture in the form of rain, hail or snow may begin to fall. Fog may also be evident in patchy areas. A sudden drop in air pressure will create very strong incoming winds.

The winds of a high pressure front will blow in a clockwise direction in the Northern Hemisphere and in a counter-clockwise direction in the Southern Hemisphere. High pressure usually indicates a clearing trend, little wind, clearing skies, warmer conditions and more stable temperatures. High pressure systems usually move from west to east, but may also come in from the south. The prevailing westerly winds move the fronts before them.

Often we experience a "ridge of high pressure" between two lows. The ridge of high pressure will give us a few hours of clearing skies, and mild, windy weather. The ridge passes, and clouds and bad weather form again with the next low pressure system.

The line between an area of warm

air and an area of cold air is termed a front. The warm air rises forming clouds, and the cold air moves in under the warm air.

**Clouds** — It is doubtful that any single factor affects the safety of the back country traveler greater than does the weather as evidenced by clouds. They are the best visible indication of pending weather conditions and changes. Clouds, along with barometric and temperature changes, are a good index of weather. Clouds are formed from condensation of moisture in the air. As air rises, it cools and reaches the dew point, thus forming clouds. The cloud forming process is as follows: 1. The sun heats the land. 2. The land heats the air. 3. The warm air rises through the high cooler air. 4. The air reaches the dew point. 5. Clouds form.

The science of weather forecasting has gained tremendous credibility in the last 25 years, and especially during the last decade with the advent of weather satellites and space technology.

Even with advanced technology though, weather forecasting in specific locales is not an exact science. The weather in the mountains can change so rapidly that weather prediction is not accurate enough for a specific location. This is due, in part, to increased humidity from evaporation rising from lakes and snowy peaks.

Since general forecasts from radio and television do not predict mountain weather accurately, it is advisable to obtain the most current weather forecast for the local area. It is a good idea to learn from the "locals" the general wind direction from which most big storms enter the area, and the general severity and length of storms.

One of the best survival skills a mountain traveller can have is good judgement based on known weather signs. This skill can be learned through study and practice.



# Be Your Own Weather Forecaster

As a mild storm moves across a wide flat valley and into the mountains, it seems to intensify and become much more severe. Clouds are blown toward the mountains which become obstacles to the wind. As the wind is forced over the mountain ranges, moisture is released on the windward side resulting in heavier rates of precipitation and generally more cloudiness. On the leeward side of the mountain, the atmosphere is drier and sunnier.

As clouds begin to move into the mountainous regions ahead of storms and "pile up" on the mountain peaks, the clouds may resemble lens (cap) clouds or lenticular clouds. The lens (cap) cloud is just what the name implies — a circular cloud formation sitting on top of a peak. The lenticular clouds will appear as "ripples" of clouds much like the ripples in a pond after a stone is dropped.

Lens and lenticular clouds are early warning signs of an impending storm. With these two cloud formations other weather changing indicators will be prevalent.

High thin *cirrus* clouds steadily moving into an area begin to cover the sky. The barometric pressure begins to drop. If the *cirrus* clouds change to *cumulus* (a fluffy, low flying cloud usually drifting at about 10,000 feet elevation), the main part of the storm is probably localized.

Wind direction in the mountains is usually difficult to assess because the mountain peaks and canyons will cause variations in wind directions. At times, the wind may seem to be blowing from every direction. Remember to watch the higher clouds for undeflected wind direction.

*Cumulus* clouds and *cumulonimbus* clouds are tall clouds which build and tower in a vertical development. These clouds are formed in very unstable moist air and may develop into *cumulonimbus* thunder heads which may appear anvil-shaped. Generally, storms resulting from *cumulonimbus* formations are quite severe in the mountains and lay down heavy snow, hail, or rain. Usually, these storms are associated with a cold front.

*Strato* clouds are low, flat-based clouds rising in heaps, usually seen in

the winter and generally indicating bad weather. Heaped white clouds may give off a little rain or snow while frontal stratocumulus indicates a storm.

**Nimbus clouds** indicate rain and snow and appear as large, layered grey clouds. They are menacing in appearance and always mean bad weather. They may or may not have the anvil shaped appearance.

**Lens or cap cloud** formations get their name from positioning themselves on a mountain peak. This cloud formation indicates moisture and high winds aloft.

**Lenticular clouds** are developed by high winds aloft and resemble the rings in a pond when a stone is thrown in. They proceed from the peaks downwind, sometimes for miles. They also indicate high winds at higher altitudes and mountain peaks.

**Stratus clouds** are low lying clouds found in elevation from ground level to about 8,000 feet. When on the ground they produce ground fog, which usually burns off when the sun rises. They present the typical "winter day" look.

**Nimbostratus clouds** appear as a solid grey mass of low, overcast skies. They usually produce long-term, steady rains.

**Alto clouds** occupy the altitude levels between 8,000 and 20,000 feet. The approach of altostratus usually indicates approaching bad weather. When they begin to pack, the outlook is for moisture of one type or another within eight to 10 hours.

**Cirrus clouds** are very high, delicate clouds thinly spread at an altitude between 20,000 to 35,000 feet. They are composed of ice crystals and appear as mares tails or solid bands of cirrus and indicate a front approaching with lower level stratus and precipitation.

In northern colder climates, cirrus clouds indicate an approaching storm with unsettled weather.

The altitude and direction that the clouds are moving are good indicators of weather conditions. In the winter, many severe and freezing storms come from the arctic air mass in the north. In the summer, a storm from the north may serve to cool down high temperatures to more comfortable levels.

In the summer, high altitude cloud cover coming from the south means a deteriorating weather system with large amounts of rain, supplied from warm, moist tropical fronts.

Low clouds mean worsening weather, high clouds mean changeable weather. The higher the clouds, the better the weather outlook — unless the cloud mass is building.

**Other Weather Indicators** — Indians, trappers, and the old-timers who have lived in the woods and mountains for years look to other sources, often, to foretell the weather. Some of these are:

Birds and insects fly lower to the earth's surface in moisture-laden air.

Insect activity increases prior to a storm.

Sky color may help predict weather. "Red sky in the morning, sailor take warning. Red sky at night, sailor's delight." Actually, red sky at either time of the day may indicate rain and wind within 24 hours. While a light pink sky may mean pleasant weather. Lavender or pale purple sky at sunrise or sunset with blue sky in between means little moisture expected. A bright yellow sunrise usually means rain within the next several hours.

Ring around the moon usually means rain or clouds. The ring is due to ice crystals suspended in the atmosphere.

Haze over the moon usually indicates

		WIND CHILL INDEX																			
TRMP P°		35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45	-50	-60	
WIND SPEED MPH		Equivalent Wind Chill Temperature																			
CALM		35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45	-50	-60	
5		33	27	21	16	COLD 12	7	1	-6	-11	-15	-20	-26	-31	-35	-41	-47	-54	-57	-66	
10		21	16	9	2	-2	-8	-15	-22	-27	-31	-38	-45	-52	-58	-64	-70	-77	-83	-93	
15		16	11	1	-6	-11	-18	-25	-33	-40	-45	-51	-60	-65	-70	-78	-85	-90	-99	-112	
20		12	3	-4	-9	-17	-24	-32	BITTERLY -40	-46	-52	-60	-68	-76	-81	-88	-96	-103	-110	-121	
25		7	0	-7	-15	-22	-29	-37	COLD -45	-52	-58	-67	-75	-83	-89	-96	-104	-112	-118	-130	
30		5	-2	-11	-18	-26	-33	-41	-49	-56	-63	-70	-78	-87	-94	-101	-109	-117	-125	-134	
35		3	-4	-13	-20	-27	-35	-43	-52	-60	-67	-72	-83	-90	-98	-105	-113	-123	-129	-137	
40		1	-4	-15	-22	-29	-36	-45	-54	-62	-69	-76	EXTREMELY COLD -87	-94	-101	-107	-116	-128	-132	-140	
45		1	-6	-17	-24	-31	-38	-46	-54	-63	-70	-78	EXPOSED FLESH FREEZES -87	-94	-101	-108	-118	-128	-139	-143	
50		0	-7	-17	-24	-31	-38	-47	-56	-63	-70	-79	-88	-96	-103	-110	-120	-128	-142	-145	
		SOME DANGER					GREAT DANGER					EXTREME DANGER									

Wind speeds in excess of 40 mph have little additional chilling effect.

To use the chart, find the wind speed in the left-hand column and the temperature in degrees F. on the top. The equivalent temperature is found at the intersect. A wind speed of 20 miles per hour and a temperature of -10° F., the equivalent temperature is -52° F.



When the wind is blowing from the north, northwest, or southwest, weather could be changing since storms usually enter from those directions at about 25 mph.

When there is no breeze evidenced by campfire smoke rising straight into the air, one can generally predict very little or no weather change for about four to six hours.

When rain begins soon after a cloud build-up, the storm will usually be of short duration. However, when it begins to rain after an extensive period of cloud build-up, the rain may last for hours.

Wind is predicted when rippled or mackerel clouds are visible, the ripple effect is caused by winds aloft. When mackerel clouds are darkening towards the horizon from which they came, then worsening weather is on the way.

When a bright sun sets with a build-up of alto cumulus clouds (thunderheads), expect rain within 12 hours.

Cirrus clouds indicate good weather.

Patchy, white cumulus clouds, cotton balls, also generally predict good weather.

Rainbows seen in the morning hours as well as rainbows seen upwind dur-

Beaufort Number	Limits of Wind Speed in Knots	Descriptive Terms	See Criterlon	Land Conditions
0	Less than 1	Calm	Like a mirror	Smoke rises vertically
1	1-3	Light air	Ripples but without foam crests	Flags flap slightly
2	4-6	Light breeze	Small wavelets with unbroken crests	Leaves rustle, wind felt on face
3	7-10	Gentle breeze	Large wavelets, with perhaps scattered whitecaps	Leaves in motion; flags flap.
4	11-16	Moderate breeze	Small waves, frequent whitecaps	Dust rises; branches sway
5	17-21	Fresh breeze	Moderate waves, more pronounced; many whitecaps; perhaps some spray	Small trees sway
6	22-27	Strong breeze	Large waves foaming; extensive white foam crests; likelihood of spray	Telephone lines whistle; umbrellas hard to hold
7	28-33	Near gale	Sea heaps up with white foam blown in streaks along direction of wind	Trees sway; hard to walk
8	34-40	Gale	Moderately high waves; foam blown in definite streaks along direction of wind	Twigs fall; cars buffeted
9	41-47	Strong gale	High waves; crests tumble and roll	Twigs fall; cars buffeted
10	48-55	Storm	Very high waves; heavy tumbling waves; poor visibility	Trees fall
11	56-63	Violent storm	Exceptionally high waves. Sea completely covered with long white of foam lying along direction of wind. Wave crests blown into froth. Poor visibility	Check Insurance
12	64+	Hurricane	Air filled with foam and spray. Very poor visibility	Pray

ing the day usually mean rain. The rainbow is reflecting atmospheric moisture.

Heavy dew on the early morning grass could mean a clear day ahead while no dew may mean that rain is coming.

When cloud types and the altitudes at which they float are rapidly chang-

ing, expect change in a relatively short period of time.

So, the outdoorsperson, hiker, or survivalist armed with just a rudimentary knowledge of the signs or weather, will be able to make some fairly accurate forecasts. And just a little of this specialized knowledge could save your life. ●

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# Protection From EMP

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*There's no need to go back to the Stone Age  
if nuclear war occurs. . .*

---

By Duncan Long

**E**MP. The letters spell burnt out electrical systems and a return to the Dark Ages to many survivalists. But it doesn't need to be that way. Once you understand EMP, you can take a few simple precautions to protect yourself and equipment from it. In fact, you can enjoy much of the "high tech" life style you've become accustomed to — even after a nuclear war.

EMP (Electromagnetic Pulse), also sometimes known as "NEMP" (Nuclear Electromagnetic Pulse), was kept secret from the public for a long time and was first discovered more or less by accident when U.S. military tests of nuclear weapons started knocking out phone banks and other equipment miles from ground zero.

While EMP is no longer "top secret," information about it is a little sketchy and often confusing. Adding to the problems is the fact that its effects are hard to predict; even electronics designers have to test their equipment in powerful EMP simulators before they can be sure it is really capable of withstanding the effect.

EMP occurs with all nuclear explosions. With smaller explosions the effects are less pronounced. Nuclear bursts close to the ground are dampened by the earth so that EMP effects are more or less confined to the region of the blast and heat wave. But EMP becomes more pronounced and wide spread as the size and altitude of a nuclear blast is increased. Of these two, altitude is the quickest way to produce greater EMP effects. As a nuclear device is exploded higher up, the



A nuclear explosion in space would release gamma radiation which would react with the upper layer of the earth's atmosphere to create EMP that would blanket the whole continental U.S. and much of Canada.

earth soaks up fewer of the free electrons produced before they can travel some distance.

The most "enhanced" EMP effects would occur if a nuclear weapon were exploded in space, outside the Earth's atmosphere. In such a case, the gamma radiation released during the flash cycle of the weapon would react with the upper layer of the earth's atmosphere and strip electrons free from the air molecules, producing electromagnetic radiation similar to broad-band radio waves (10 kHz-100 MHz) in the process. These electrons would follow the earth's magnetic field and quickly circle toward the ground where they would be finally dampened. (To add to the confusion, we now have two more

EMP terms: "Surface EMP" or "SEMP" which refers to ground bursts with limited-range effects and "High-altitude EMP" or "HEMP" which is the term used for a nuclear detonation creating large amounts of EMP).

Tactically, a space-based nuclear attack has a lot going for it; the magnetic field of the earth tends to spread out EMP so much that just one 20-megaton bomb exploded at an altitude of 200 miles could, in theory, blanket the continental U.S. with the effects of EMP.

It's believed that the electrical surge of the EMP from such an explosion would be strong enough to knock out much of the civilian electrical equipment over the whole country. Certainly this is a lot of "bang for the buck" and it would be foolish to think that a nuclear attack would be launched without taking advantage of the confusion of high-altitude explosion could create. Ditto with its use by terrorists should the technology to get such payloads into space become readily available to smaller countries and groups.

But there's no need for you to go back to the Stone Age if a nuclear war occurs. It is possible to avoid much of the EMP damage that could be done to electrical equipment with just a few, simple precautions.

First of all, it's necessary to get rid of a few erroneous facts, however.

One mistaken idea is that EMP is like a powerful bolt of lightning. While the two are alike in their end results — burning out electrical equipment with intense electronic surges — EMP



is actually more akin to a super-powerful radio wave. Thus, strategies based on using lightning arrestors or lightning-rod grounding techniques are destined to fail in protecting equipment from EMP.

Another false concept is that EMP "out of the blue" will fry your brain and/or body the way lightning strikes do. In the levels created by a nuclear weapon, it would not pose a health hazard to plants, animals, or man PROVIDED it isn't concentrated.

EMP can be concentrated.

wiring is one reason that most electrical equipment and telephones would be destroyed by the electrical surge. It isn't that the equipment and telephones would be destroyed by the electrical surge. It isn't that the equipment itself is really all that sensitive, but that the surge would be so concentrated that nothing working on low levels of electricity would survive.

**Saving Equipment** — Protecting electrical equipment is simple if it can be unplugged from AC outlets, phone sys-

of the nuclear-generated EMP wave and will keep the equipment from getting a damaging concentration of electrons. Provided the equipment isn't operated close to some other metal object (i.e., within 8 feet of a metal girder, telephone line, etc.), it should survive without any other precautions being taken with it.

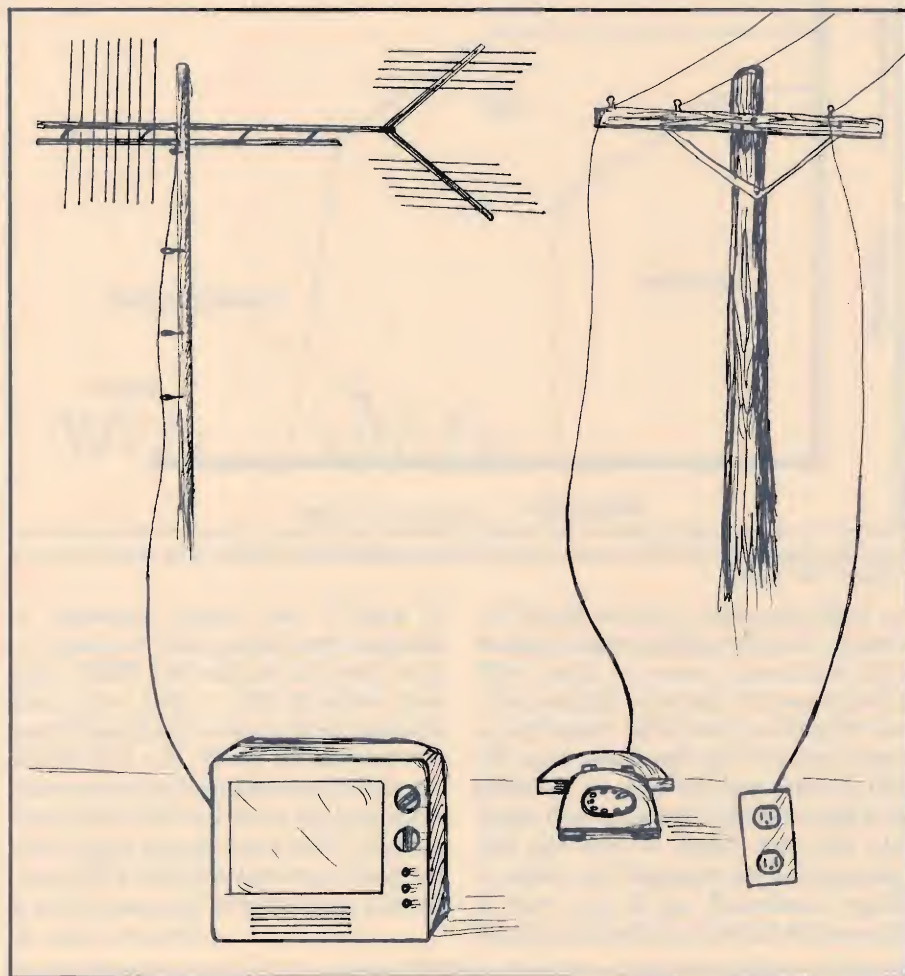
If you don't want to buy a wealth of batteries for every appliance you own or want to use a radio set up with longer than 30-inch antenna, then you'll need to use equipment that is "hardened" against EMP.

The trick is that it must REALLY be hardened from the real thing, not just EMP-proof on paper. This isn't all that easy; the National Academy of Sciences recently stated that tailored hardening is "not only deceptively difficult, but also very poorly understood by the defense-electronics community." Even the military has equipment which might not survive a nuclear attack, even though it is designed to do just that.

That said, there are some methods which will help to protect circuits from EMP and give you an edge if you must operate ham radios or the like when a nuclear attack occurs. Design considerations include the use of tree formation circuits (rather than standard loop formations); the use of induction shielding around components; the use of self-contained battery packs; the use of loop antennas; and (with solid-state components) the use of Zener diodes. These design elements can eliminate the chance an EMP surge from power lines or long antennas damaging your equipment. Another useful strategy is to use grounding wires for each separate instrument which is coupled into a system so that EMP has more paths to take in grounding itself.

A new device which may soon be on the market holds promise in allowing electronic equipment to be EMP hardened. Called the "Ovonic threshold device," it has been created by Energy Conversion Devices of Troy, Michigan. The Ovonic threshold device is a solid-state switch capable of quickly opening a path to ground when a circuit receives a massive surge of EMP. Use of this or a similar device would assure survival of equipment during a massive surge of electricity.

Some electrical equipment is innately EMP-resistant. This includes large electric motors, vacuum tube equipment, electrical generators, transformers, relays, and the like. These might even survive a massive surge



EMP can storm into your home at the speed of light through the telephone, via antennas, or over the AC power grid. Equipment connected to such wiring will probably be destroyed unless special precautions are taken.

That could happen if it were "pulled in" by a stretch of metal. If this happened, EMP would be dangerous to living things. It would become concentrated by metal girders, large stretches of wiring (including telephone lines), long antennas, or similar set ups. So — if a nuclear war were in the offing — you'd do well to avoid being very close to such concentrations. A safe distance for nuclear-generated EMP would be at least 8 feet from such stretches of metal.

This concentration of EMP by metal

tems, or long antennas. But that assumes that you won't be using it when the EMP strikes. That isn't all that practical and if a nuclear war were drawn out or an attack occurred in waves spread over hours or days you'd have to either risk damage to equipment or do without it until things had settled down for sure.

One simple solution is to use battery-operated equipment which has cords or antennas of only 30 inches or less in length. This short stretch of metal puts the device within the troughs



# Protection From EMP

of EMP and would be likely to survive if a few of the above precautions were taken in their design and deployment.

At the other end of the scale of EMP resistance are some really sensitive electrical parts. These include IC circuits, microwave transistors, and field Effect Transistors (FETs). If you have electrical equipment with such components, it must be very well protected if it is to survive EMP.

One "survival system" for such sensitive equipment is the Faraday box.

A Faraday box is simply a metal box designed to divert and soak up the EMP. If the object placed in the box is insulated from the inside surface of the box, it will not be affected by the EMP traveling around the outside metal surface of the box. The Faraday box is simple and cheap and often provides more protection to electrical components than "hardening" through circuit designs which can't be (or haven't been) adequately tested.

Many containers are suitable for make-shift Faraday boxes: cake boxes, ammunition containers, metal filing cabinets, etc., etc., can all be used. Despite what you may have read or heard, these boxes do NOT have to be air-tight due to the long wave length of EMP; boxes can be made of wire screen or other porous metal.

The only two requirements for protection with a Faraday box are: (1) the equipment inside the box does NOT touch the metal container (plastic, wadded paper, or cardboard can all be used to insulate it from the metal) and (2) the metal shield is continuous without any gaps between pieces or extra-large holes in it.

Grounding a Faraday box is NOT necessary and in some cases actually may be less than ideal. While EMP and lightning aren't the "same animal," a good example of how lack of grounding is a plus can be seen with some types of lightning strikes. Take, for example, a lightning strike on a flying airplane. The strike doesn't fry the plane's occupants because the metal shell of the plane is a Faraday box of sorts. Even though the plane, high over the earth, isn't grounded it will sustain little damage.

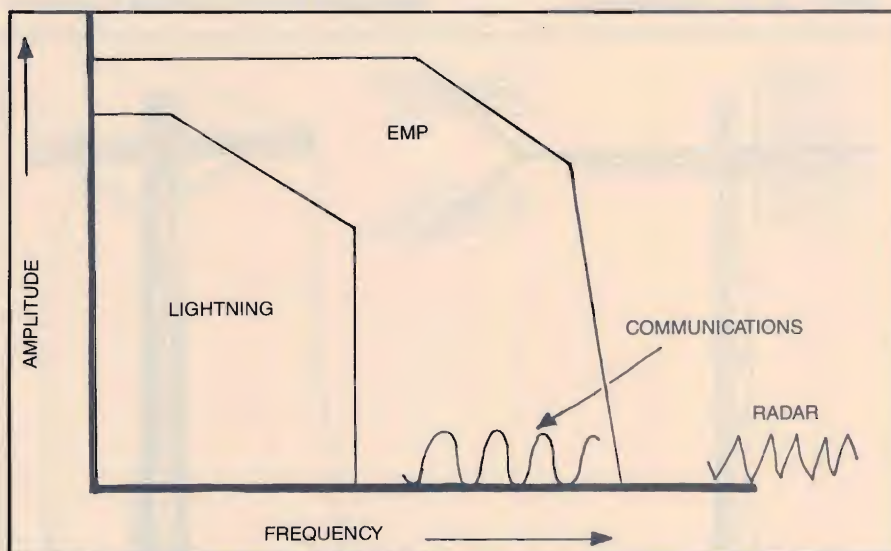
In this case, much the same is true of small Faraday cages and EMP. Consequently, storage of equipment in Faraday boxes on wooden shelves or the like does NOT require that every-

thing be grounded. (One note: theoretically non-grounded boxes might hold a slight charge of electricity; take some time and care before handling ungrounded boxes following a nuclear attack).

The thickness of the metal shield around the Faraday box isn't of much concern, either. This makes it possible

anywhere. The result is an "instant" Faraday box with your equipment safely stored inside, ready for use following a nuclear war.

Copper or aluminum foil can help you insulate a whole room from EMP as well. Just paper the wall, ceiling and floor with metal foil. Ideally the floor is then covered with a false floor

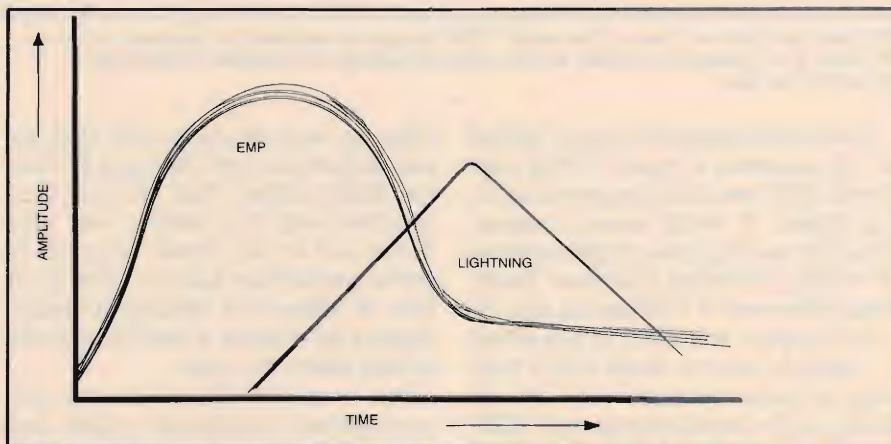


Spectrum comparison of EMP and other common environmental electronic wave forms shows how wide a band EMP covers.

to build protection "on the cheap" by simply using the cardboard packing box that equipment comes in along with aluminum foil. Just wrap the box with the aluminum foil (other metal foil or metal screen will also work), tape the foil in place and you're done. Provided it is kept dry, the cardboard will insulate the gear inside it from the foil; placing the foil-wrapped box inside a larger cardboard box is also wise to be sure the foil isn't accidentally ripped

of wood or with heavy carpeting to insulate everything and everyone inside from the shield (and EMP). The only catch to this is that care must be taken NOT to allow electrical wiring connections to pierce the foil shield (i.e., no AC-powered equipment or radio antennas can come into the room from outside). Care must also be taken that the door is covered with foil AND electrically connected to the shield with a

(Continued on Page 62)



EMP, while similar to lightning, builds up its peak power considerably faster than lightning making it impossible for many devices designed for protecting equipment from lightning to react fast enough to stop EMP's damage.



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Hypnosis:

# Healing Words

*Instant first aid for medical emergencies. . .*

By Don T. Jacobs, Ph.D., E.M.T.

**M**OST martial arts experts know that the mental aspect of self defense is at least as important as the physical skill.

They have learned that great increases in strength and automaticity can be gained with practiced visualization.

If these experts had attended classes in medical hypnosis, they would have learned also that the same mental power that can be used to break a board can be used to stop bleeding, influence heart rate and blood pressure, enhance respiratory functions and control pain response.

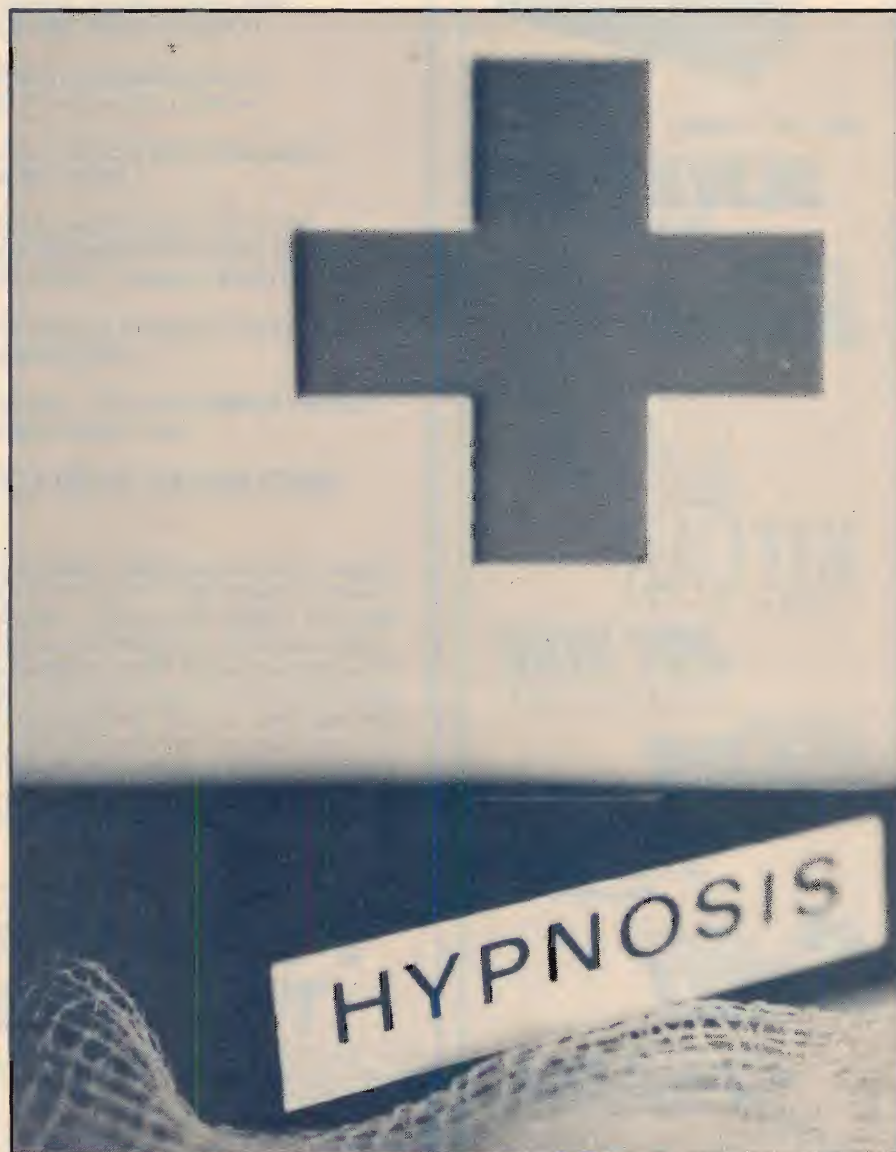
Indeed, without the need of a first-aid kit or medical personnel, the chances for personal survivability can be significantly increased with the understanding of a few simple principles of hypnosis.

Anyone who has ever taken a first-aid course has learned that "proper" communication with the victim is a priority that is often recognized, yet seldom explained. The first step in most standard medical emergency procedures is to "calm and reassure," but descriptions of such procedures always move quickly to the next step. In the introduction to the 4th Edition of *Emergency Care and Transportation of the Sick and Injured*, the American Academy of Orthopaedic Surgeons notes that:

"During periods of great stress, words that seem immaterial or are uttered in jest might become fixed in the patient's mind and cause untold harm . . . Appropriate conversation at the scene is a must."

Nonetheless, little more is ever mentioned about this profound observation.

Until recently, most first-aiders have merely assumed that "appropriate con-



versation" meant telling a victim not to worry and trying to avoid obvious negative comments that might alarm the victim. Research, however, suggests

a far more significant approach. The evidence clearly shows that, just as words have the power to "cause untold harm," they also have the potential to





do great benefit.

The reason that the spoken word can have such an effect is that people who are, or who believe they are, in a life-threatening situation automatically enter into the state of consciousness known as hypnosis. This natural protective mechanism causes the victim to be acutely responsive to certain kinds of directives or suggestions. The result is a non-critical acceptance of alternatives that can either support or erode vital life systems.

If fact, any function of the autonomic nervous system can be influenced by hypnotic suggestion. This includes: bleeding, inflammation, immune responses, pain response, alarm response, blood pressure, burn injury response and respiratory function.

An understanding of basic principles of hypnosis will thus not only provide a methodology for "calming and reassuring" and for recognizing potentially damaging comments, it will also allow a rescuer to initiate a variety of strate-

gies that can immediately support life and alleviate suffering.

"Emergency hypnosis" is especially useful when the injured party is far from professional help. This is because the life-threatening possibilities of even relatively minor injuries in remote places increase the likelihood of hypnotic perceptions. Second, remote conditions often require first-aid skills that are independent of medical resources such as equipment, personnel, transportation and hospital facilities. Hypnosis may be the most important of such skills.

Although a more detailed description of hypnotic strategies for medical emergencies is presented in the video, *Hypnosis for Medical Emergencies*, (available from Motivational Seminars, 48 Palm Lane, Novato, CA 94945), a rescuer could save a life by simply following the guidelines represented by the acronym, CREDIBLE. At the emergency scene he should:

1. Gather and project sufficient Con-

fidence. 2. Develop and maintain positive Rapport. 3. Build positive Expectations for the future. 4. Give specific Directives or suggestions that: 5. create an *Image* in the patient's mind; 6. are sufficiently *Believable*; 7. can be interpreted *Literally*; 8. are given with sufficient *Enthusiasm*.

The more "credibility" a rescuer gives to the potential of hypnotic phenomenon, the greater his or her success will be in using it. The "matter-of-factness" with which a suggestion is given cannot be easily faked.

The emergency victim in hypnosis is extremely sensitive to the sincerity and confidence of those surrounding him. To gain this sense of credibility, a rescuer or potential rescuer should review the literature on medical hypnosis, especially those books referenced [here](#). In the meantime, however, every effort should be made to implement the guidelines of the acronym at the first opportunity. By simply targeting a

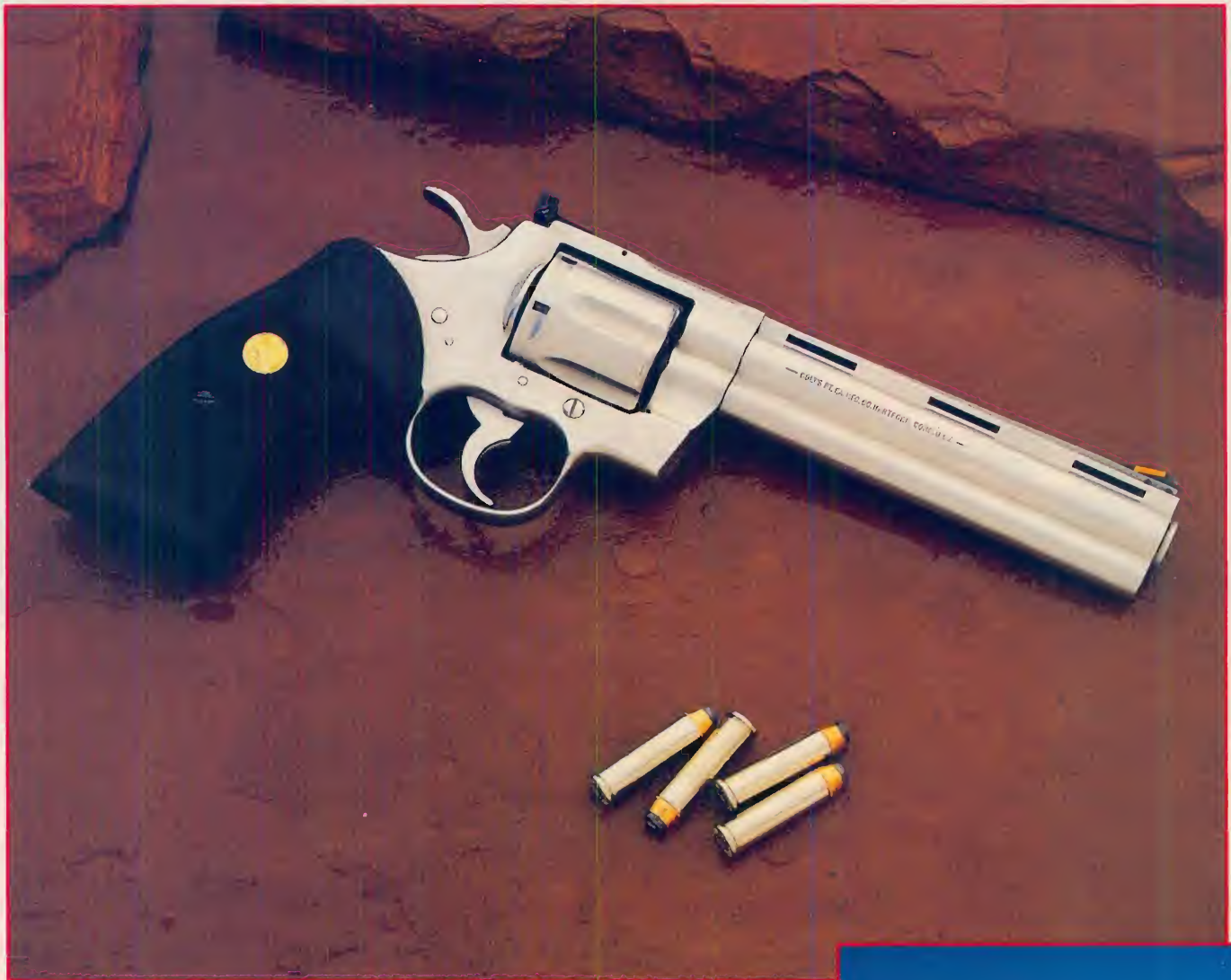
(Continued on page 64)



Colt:

# Python

*Top of the line .357 Magnum revolver. . .*



## Staff Evaluation

**I**NTRODUCED in 1955, the Colt Python .357 Magnum revolver has been one of the most successful and popular American handguns ever made.

Featuring the distinctive ventilated rib and full length ejector rod shroud, hand honed and fitted contact parts, forged frame, barrel and other parts, adjustable (windage, elevation) white outline rear sight and red inset front

sight, the Python is intended for personal and home protection, law enforcement and military use, hunting, target and competitive shooting and collecting.

The single-action trigger pull of the Python ranges from 2½ to 4½ pounds while the maximum double-action pull is 12 pounds. The wide spur hammer

*(Continued on page 66)*





Smith & Wesson:

# Model 686

*'All-purpose,'  
reasonably priced  
.357 Magnum  
revolver . . .*



## Staff Evaluation

**G**EARED toward the law enforcement market, the Smith & Wesson Model 686 .357 Magnum revolver was introduced in the early 1980s.

Developed for those who need a sturdy, dependable revolver for heavy use, the medium-frame (L frame) 686 has been very popular with law enforcement personnel and competitive shooters as well as people who want a reasonably priced .357 Magnum for home and personal defense.

The full-lug barrel and heavier weight

*(Continued on page 68)*

The Model 686 with 6-inch barrel and with 2 1/2-inch barrel.



# International Travel Risks

By Scott Stoddard

**A** **MERICAN** travelers should be increasingly alert to the hazards of overseas travel and should prepare ahead of time for the possible dangers. Terrorist attacks, kidnappings, air disasters, bombings, hotel fires, and ordinary street crimes are becoming more

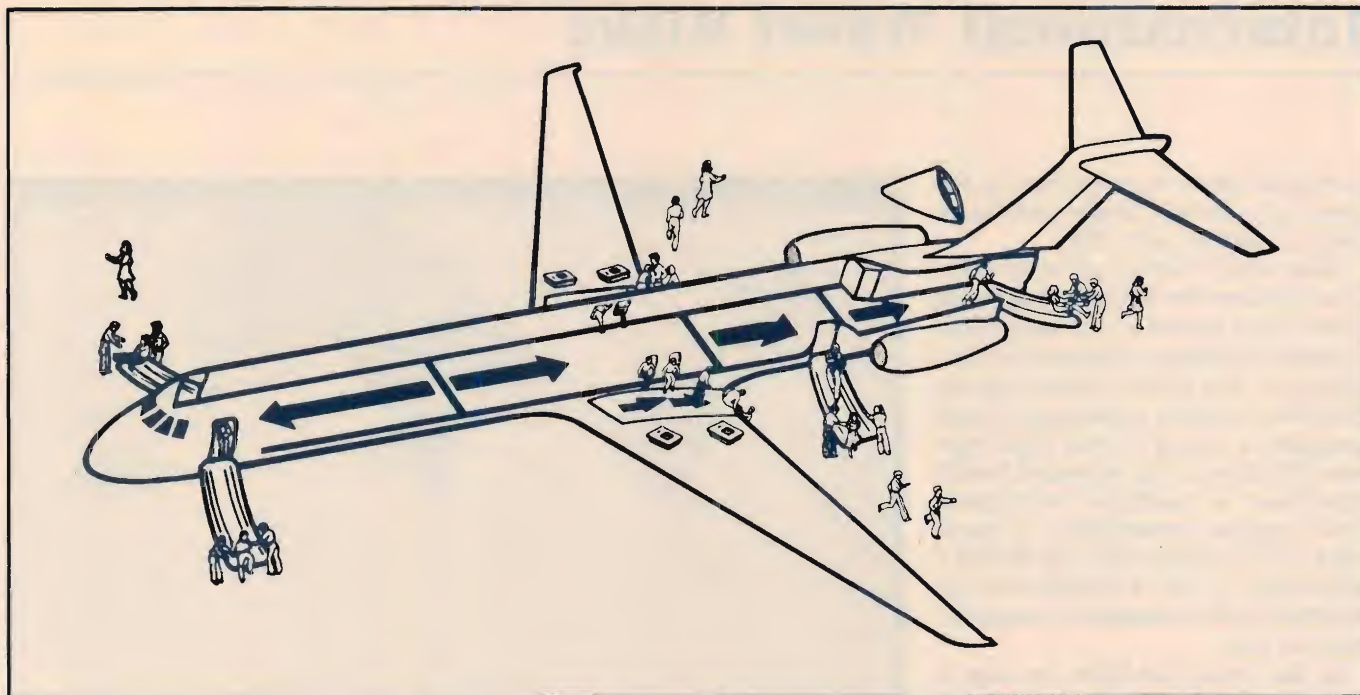
prevalent each year. The State Department reports that the number of terrorist incidents involving American citizens is about 800 per year. The overall American death toll from terrorism is over 400 persons.

Weeks and even months before you

*Knowing the risks  
beforehand will help you  
prepare a precautionary  
travel plan...*







Avoid seats near the cockpit — terrorist activity will be concentrated there. Safer seats are located in the rear of the plane.

plan to travel to a foreign land you should develop a systematic plan for handling travel hazards. This plan can be broken up into three sections. (1) Pre-flight preparation; (2) in-flight travel time; and (3) activities on foreign soil.

**Preflight Preparation** — Vaccinations may be required before entering certain countries. The *World Status Map*, updated on a monthly basis, lists what countries require cholera, typhoid, and yellow fever vaccinations. It is available by writing: World Status Map, Box 466, Merrifield, VA 22116; (301) 564-8473. The cost of the map is \$6. See box at end of article.

Plan to get these inoculations early. Some may require more than one inoculation which need to be given at least a week apart and *should* be as much as a month apart. If you are going to areas with malaria you should start taking malaria prophylaxis pills two weeks before departure for them to be effective.

Another source for vaccine information is John Hopkins University, The International Health Clinic, Hampton House, Room 113, 624 North Broadway, Baltimore, MD 21205. They offer a complete range of vaccines along with pretrip and posttrip consultations with doctors who specialize in infectious diseases and international health. Call (301) 955-8931 weekdays between 9:00 a.m. and 5:00 p.m.

Visas and passports should be obtained at least a month before departure. When getting passport photos, always order extra copies in multiples of two. These extra photos might be used on visas, driver's permits, or for a new passport if yours is lost or stolen.

If you already have a valid passport, make sure that the old entry stamps will not cause you problems when

entering your country of destination. Israeli entry stamps will not look good if you are planning a trip to an Arab country. If this is the case, get a new passport.

Terrorism is a major concern for travelers in these turbulent times. Actually, you are probably safer traveling abroad than walking down a city street at night in a major U.S. city. It



Window seats are better during terrorist situations, but during a fire the plastic windows melt causing toxic fumes.



# International Travel Risks

is wise, however, to make plans in the event of a terrorist incident and learn ways to reduce your risk.

Keep a file at home and at the office that contains the following important items: your itinerary, including flight numbers and hours of departure, a photocopy of your airline ticket showing the ticket number, a photocopy of your passport, a record of your blood type and Rh factor, a list of special health conditions or medicinal restrictions, your eyeglass prescription, a photocopy of your vaccination certificate, a photocopy or list of traveler's check numbers and an emergency communications plan.

In the home file folder be sure to include a valid will, a record of financial affairs that require administration, a power of attorney over your financial affairs to your spouse or a designated person, checks and deposit slips for your joint account, your key to a joint safe deposit box, a photocopy of your credit cards, copies of your life insurance and health insurance policies and instructions on what to do in case of a hijacking or kidnapping: who to contact, what to say to the press — or how to avoid saying anything to the press ("company policy against interviews," etc.).

An emergency communications plan is a list of key words or a code that you can keep in both home and office files and is used when kidnappers or terrorists permit you to speak or write to outsiders. Make the list short so you can memorize it. To help you remember the code list, the first letter of each word on the list should form a simple acronym. For example:



The World Status Map contains warnings and advisories for each country in the world.

Note that the first letters of *alarmed*, *sad*, *give*, *many*, *all right*, and *good* spell out ASG-MAG (*American Survival Guide Magazine*). This acronym or any other word you can come up with will help you remember your set of code words.

**In-flight travel** — The National Transportation Safety Board (NTSB) and many flight attendants say that the safest seats are in the rear of an airplane. While those seated in the rear will have a better chance of surviving the initial impact of a crash, prompt evacuation to escape smoke and fire is extremely important. Because fire will probably block exits on one side of the plane, aisle seats with quick

access to exits on both sides and the rear are recommended.

Cotton and pure wool are good fabrics to wear while traveling aboard commercial jet aircraft. Synthetic fabrics like polyester and nylon should be avoided. They tend to melt when exposed to fire, increasing the threat of injury.

A new product offered by Survival Products Inc., called Survivaid, will increase your chances of escaping a fiery plane crash. Weighing less than 5 ounces and stored in a small plastic envelope measuring 5½" x 8", Survivaid is a flame proof hood that is placed over the head. It contains a passive filter that removes harmful particulate matter from smoke and absorbs toxic fumes and gases. The Survivaid can be ordered for \$29.95 from: Survival Products Inc., P.O. Box 100428, Ft. Worth, TX 76185; (817) 923-0300. This product can also be used to increase get-away time in an office or hotel fire.

During a hijacking incident, the safest seats are those located over the wing in the mid to aft section of the plane. Because the cockpit is where the terrorists will be concentrating their initial efforts, a seat near the rear, and not an aisle seat, will be the safest.

The 1985 TWA hijacking of Flight

Code Word	True Meaning	Phrase as Spoken or Written
Alarmed	I am in a city area with street noises.	"Don't be <i>alarmed</i> "
Sad	I am being beaten and/or tortured.	" <i>Sad</i> to miss you"
Give	I am in a rural area with no street noises.	" <i>Give</i> my love..."
Many	I am among many armed captors.	" <i>Many</i> thanks for your love and support."
All right	I am O.K., treated well.	"I'm <i>all right</i> ."
Good	I am injured or sick.	"I'm in <i>good</i> health."

(Continued on page 60)



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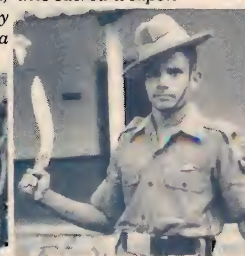
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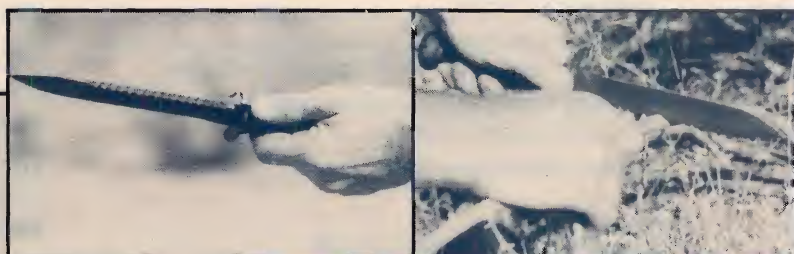


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# Glock Survival Knives & Field Spade

*Rugged, high-tech tools  
from Austria...*

The polymer sheath will fit on belts up to 2½ inches wide. Patented loop catch holds the knife in sheath securely until catch is opened with the fingers.



The double row, staggered saw teeth of the Glock 81.



The Glock field spade with saw that stores inside the telescoping handle, and the Glock 78 field knife and bayonet and Glock 81 survival knife with saw teeth.



The telescoping field spade handle extends the length of the entire spade to 25 inches. Handle locking mechanism allows four angles for the spade.

## Staff Evaluation

**T**he innovative, unique and popular Austrian Glock 17 and 19 9 mm pistols which were reviewed by the ASG staff in the December 1988 issue led to our discovering that Glock also makes a military bayonet and field spade for the Austrian Army.

The bayonet and a sawback survival knife version of it as well as the field spade are available for sale on the civilian market in the United States and other countries. We requested and received from Glock, Inc. samples of these knives and the field spade for

evaluation.

The Glock 78 field knife was developed in close cooperation with the Austrian special forces and has been adopted as a multi-purpose standard field knife by the Austrian Army. It is designed for close combat, balanced for throwing and can be attached to the Austrian Army Steyr AUG rifle as a bayonet.

Overall length is 11.4 inches. Weight is 7.1 ounces. The 6.5-inch blade is specially hardened alloy steel with dim black anti-corrosive finish. Surface

hardness is 50-55 HRC.

A lightweight (1.6 ounces) black or olive drab sheath made of high resistance polymer has a patented loop catch that prevents the knife from coming out unless the catch is pressed with the fingers. The knife handle is made of the same type material with a crinkled surface for good grip. The thumb rest doubles as a bottle opener. The Glock 81 survival knife is the same knife as the Glock 78 with the addition of double row (staggered) saw teeth 3.9 inches long on the back of the blade.



We tried out these knives and they were reasonably sharp out of the box, strong and resilient. The coating on the blades will stand up to a lot of scratching. And the saw teeth are effective. We were able to saw deeply into old wood and cut 1-inch hemp rope with no problems.

The newly developed Glock field spade with its extendable telescoping handle and folding, lockable (four positions) blade has been proven in tests with Austrian alpine troops. It has new designs and high resistance polymer materials in the handle and locking mechanism as well as a specially hardened steel blade that has no welding or rivets. The spade is about half the weight (24 ounces) of a conventional spade. In the handle is a steel saw with screwdriver tip which when removed and attached to the end of the handle will handle most sawing jobs efficiently (but not on very hard surfaces such as metal). The spade is only 10 inches long folded and six inches wide. It extends to 25 inches long.

We tried digging with the spade in its various locked positions and sawing dead trees and live tree and shrub branches with the saw. The spade and



The saw stores inside the field spade handle until needed. It is then quickly locked in place for sawing wood or other materials.

saw were both effective. We did nick up the spade a bit by hitting a few rocks as we dug holes with it. The metal of the spade seems to be somewhat susceptible to nicks and dents—a trade-off for the light weight of it. But with a

little care, this tool would last for many years of rugged use.

For more information about these tools, contact Glock, Inc., Dept. ASG, 5000 Highlands Parkway, Suite 190, Smyrna, GA 30080; (404) 432-1202. ●

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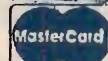
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## Staff Report

**T**he model AGB-10KG-SR Jordan Radgun is a highly sensitive portable instrument for use in health monitoring, food and water monitoring and other measurements of radiation from background levels to a maximum of 10,000 rads per hour. The meter, ionization chamber and controls are housed in a sturdy, easy-to-handle aluminum case. The Radgun comes with a hermetically sealed checksource of krypton (Kr85) which can be used to calibrate the meter.

For added versatility, the AA0003 Ridgid Probe and the 25 foot AA0002 Extension Cable are available for use with the Radgun. Both are furnished with adapters and can be easily mounted in the field, making this a good way to take outside radiation readings from inside an underground shelter.

The Radgun will operate in all kinds of weather and temperature (-10 degrees F to +140 degrees F). It is completely immersion proof and is reliable in relative humidity from zero to 100 per-



The Radgun is easily held with pistol grip and has a three stage knob for selecting measuring levels.

The Radgun scale is  $3\frac{1}{4}$  inches wide and uses a logarithmic scale from .01 to 10.





The ionization chamber is extremely sensitive and can measure background levels of radiation to high range nuclear explosions.



The 25 foot probe is useful for taking readings from inside a shelter.

cent. It is also independent of pressure changes from sea level to over 50,000 feet.

The scale is 3¼ inches and is logarithmic with marks from .01 to 10. By turning the control knob it is possible to measure certain ranges (mr/hr, r/hr, etc.) of alpha, beta or gamma radiation. The Radgun is approximately 4½ inches in diameter and measures 12½ inches long. It weighs five pounds and has a gold anodized finish.

The Radgun is an industry standard and has been in service worldwide for over 20 years. Order the Radgun for \$749.95 through NITRO-PAK Storage Foods and Emergency Supplies, 11018 E. Rosecrans Ave., Suite 300, Norwalk, CA 90650; (213) 929-4705. ●

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# The Snowshoe

*One of the oldest inventions of man,  
the snowshoe has been around for 6,000 years. . .*

By Scott Stoddard

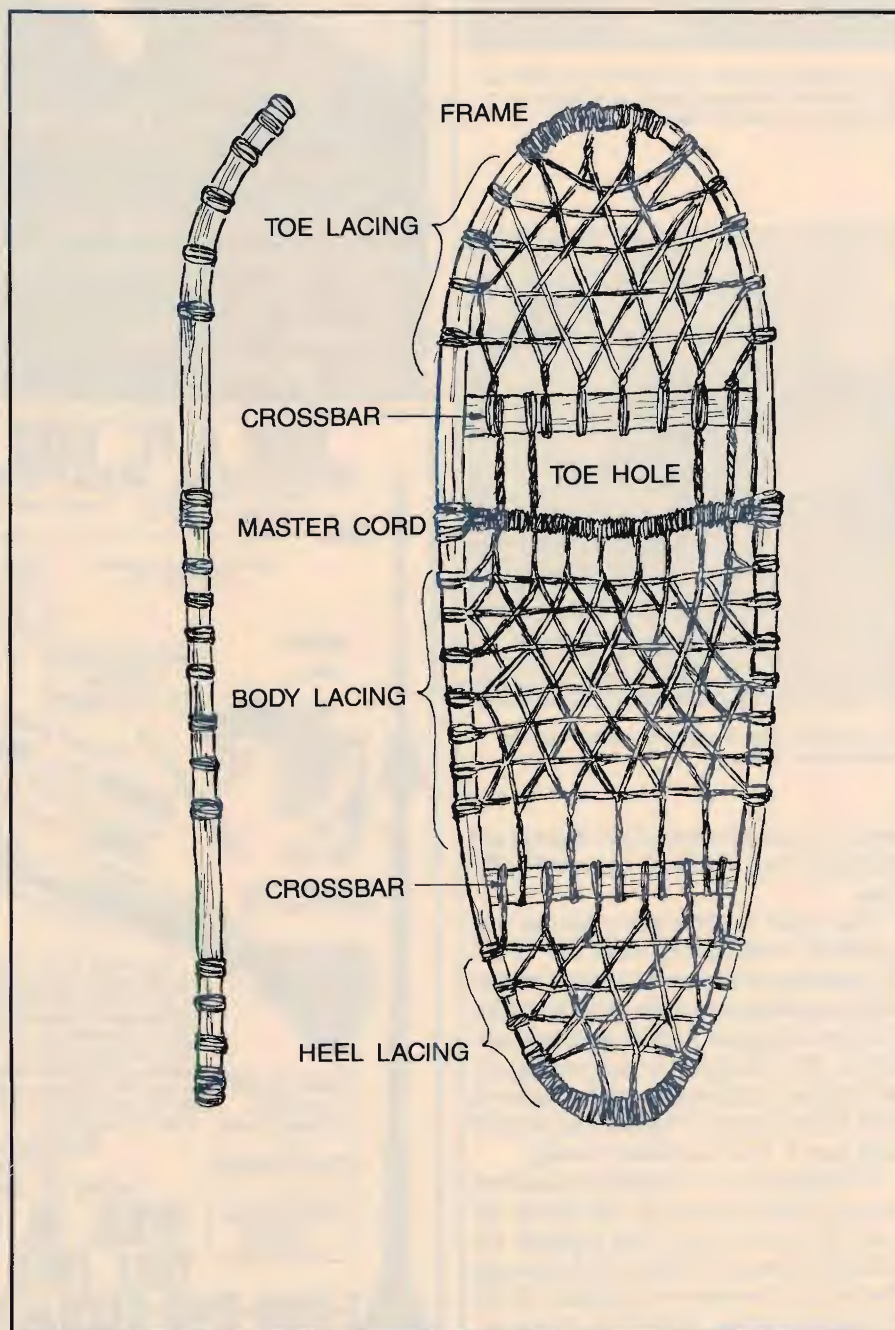
**E**VIDENCE suggests that the first snowshoes were devised in Central Asia at about 4,000 B.C. Ranking in importance with the invention of the wheel, skis and snowshoes played an important part in the life of early man. Man's ability to settle the northern hemisphere was based on his ability to traverse and hunt great distances in snowy conditions.

While skis were favored by the people who eventually settled northern Asia and Europe, there is no evidence that those who came to America ever used skis. The North American Indians were the great innovators in snowshoe design. Although the Eskimo, who moved about on sea ice and the hard packed snow of the tundra, seldom used snowshoes, the American Indian found snowshoes to be an absolute necessity for winter travel in the forested temperate zone.

Two groups of Indians are credited for bringing the snowshoe to its greatest peak of perfection. The Athapaskan Indians of the American and Canadian West Coast and the Algonquin Indians of the Ottawa and St. Lawrence River Valley both introduced hundreds of varieties of snowshoe designs, each suited for a specific snow condition.

Before the Spaniards reintroduced the horse to North America, even the Plains Indians were hunting buffalo on snowshoes. It can be said of all the tribes living in snowbound regions, that the use of the snowshoe was truly a common cultural characteristic.

The first white men to make use of the snowshoe were probably the French. As they began to colonize the St. Lawrence River area in the 1600s, they tended to intermingle freely with



The modified bearpaw. They range in size from 11x33 inches to 10x36 inches.



the native tribes, learning many skills from the Indians.

During the French and Indian War, the French, in their effort to maintain dominion over North America, used guerrilla tactics learned from the Indians to fight the English. With their snowshoes they made lightning raids on English settlements and came close to winning the war.

As the western expansion increased, the trappers and hunters known as mountain men considered snowshoes as equally important as their ax or flintlock rifle. Winter travel high up in the western mountain ranges was almost impossible without them.

Indian tribes have maintained the lead in snowshoe manufacture until recent times and even today some of the best and most inexpensive snowshoes are produced in Indian communities. Cabela's, through their mail

order catalog of hunting and fishing supplies, offers a good selection of snowshoes made by the descendants of the Huron tribe. For more information write: Cabela's, 812-13th Ave., Sidney, NB 69160; or phone (800) 237-4444.

In these days of snowmobiles and four-wheel drive vehicles, it's still a good idea to know something about snowshoes. In fact they could play a very important part in your survival plans should your vehicle become disabled or a sudden blizzard overcomes the road. Easier to stash than cross-country skis, a pair of snowshoes will fit in most car trunks or behind the seat in a pick-up truck. Getting stranded in snow drifts without a means of getting out could spell disaster.

In an emergency situation, a pair of snowshoes can be improvised by tying pine bows to the bottom of your boots. If there is a little more time, and you

have a pocketknife, it is possible to make a temporary pair using tree branches and strips of bark. A springy sapling can be bent to form the main framework and then smaller twigs can be woven together to form a surprisingly strong platform for snow travel.

If you're not concerned with aesthetics, a functional snowshoe can be made from aluminum tubing and nylon rope. After bending the aluminum, the only tool required is an electric hand drill to make holes for the lacing and a few screws. Use two pieces of wood for the crossbars and hold them in place with wood screws.

**Snowshoe designs** — The Indians found their basic designs by imitating nature. Beavertail snowshoes take their shape from the hind feet of the snowshoe rabbit. Bearpaw models resemble the tracks of the bobcat or lynx. (Bears



Improvised snowshoe made of twigs and bound with bark strips.



From left to right — homemade aluminum snowshoe with nylon cord. Huron made beavertail snowshoe. Improvised shoe of sticks and bark.



# The Snowshoe

leave deeper tracks and prefer to hibernate than walk in the snow.)

*Yukon* style snowshoes are long and narrow, measuring about 10 inches wide and from 42 to 62 inches in length. These shoes are designed for open country where it is not necessary to make sharp turns or wade through thick forests. The *Yukon* is for deep powder snow and is good for traversing and descending steep slopes.

The *beavertail* snowshoe is the most popular design, with names like the *Maine*, *Michigan*, and *Huron*. Sizes run from 9x30 inches to 20x44 inches. *Beavertail* snowshoes are flatter, (the toe does not turn up as much as the *Yukon*) and offers easier step kicking when climbing up a slope.

*Bearpaws* are short and wide with rounded tails. Sizes range from 12x24 inches to 19x26 inches. *Bearpaws* are made for easy maneuvering, quick turns and step kicking. Their flat design, however, make the toes more likely to run under the surface when descending a steep slope. With lengths shorter than 28 inches it is possible to override this tendency by "heeling in" and kicking steps while descending with the back of the snowshoe.

The technique for using snowshoes is simple and requires only common sense. Walk normally and avoid a wide, spraddled stance. Narrower snowshoes will help you avoid straining your hip tendons. An ice ax may help on level areas but if the snow is too deep, ski poles will help maintain balance and provide extra push from the arm muscles.

A simple rest step is a good energy-saver and helps prepare the snow for the full force of your weight. The rest step is done by bringing the snowshoe forward and stamping it down firmly in place. Then straighten the rear knee joint so the tendons and cartilage are holding your weight; pause and rest the thigh muscles momentarily, then bring the rear leg forward and thrust the snowshoe out and place it. Lock the new rear leg as before and rest momentarily, and repeat. This method of steady, paced progress works great for breaking new trail and for traversing when a high leg lift is required.

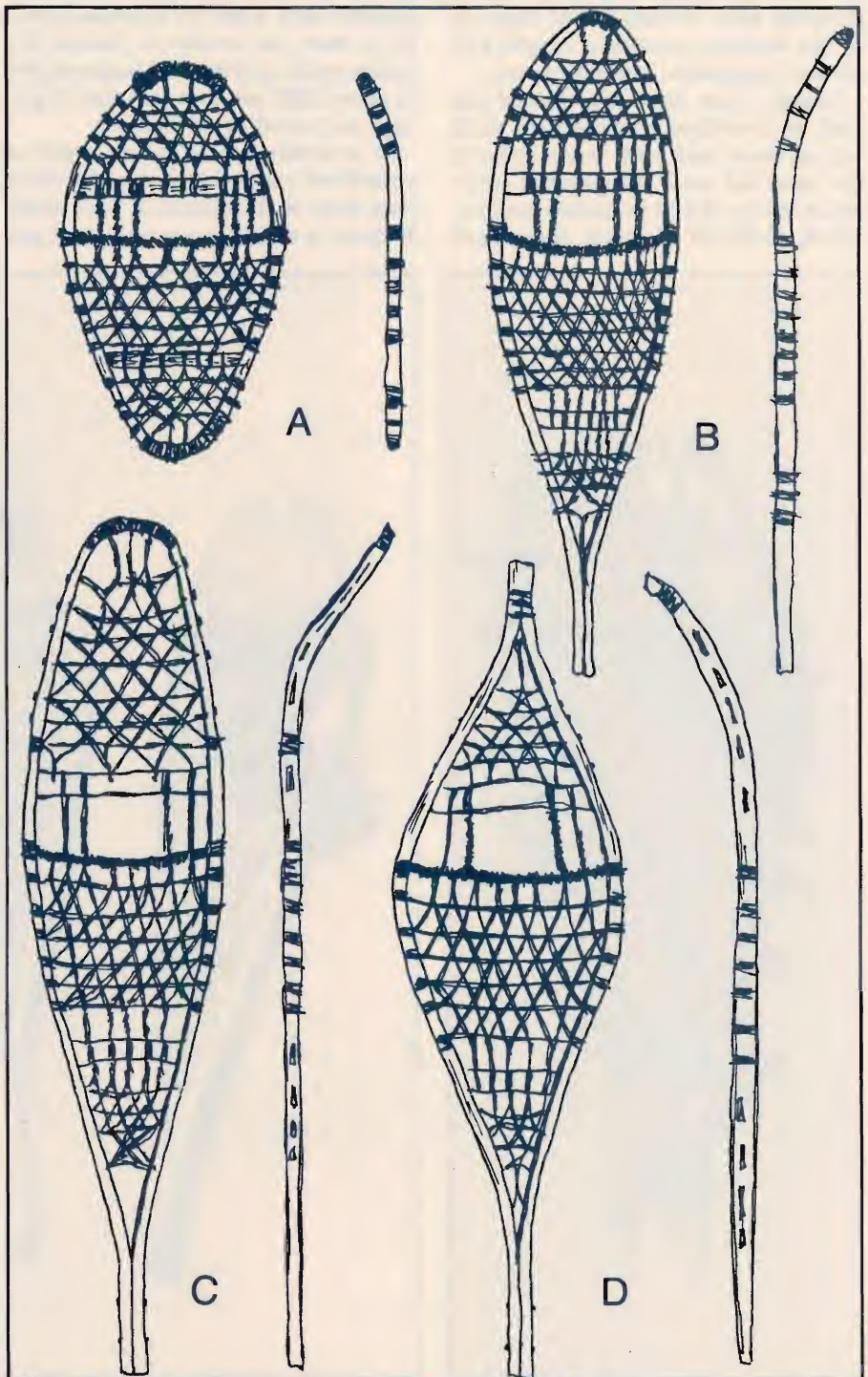
When traveling through loose snow, the rest step prepares the snow to bear the full load of your weight. After the momentary pause the snowshoe is brought forward and placed, but not with your

full weight. This packs down the powder snow somewhat so that when your full weight is applied you won't sink as far.

Besides their use in walking, snowshoes can double as an emergency snow shovel, and can be used to cut blocks for an igloo type shelter. As always,

good winter clothing and outdoor mountain knowledge is important when planning a snowshoe trip.

The snowshoe should be more than a decoration on the wall of your winter cabin. With practice, snowshoeing can be fun and may one day provide you the edge in a survival situation. ●



Four snowshoe models showing top and side. A is the standard bearpaw; B is the beavertail; C is the Yukon; and D is Ojibwa.



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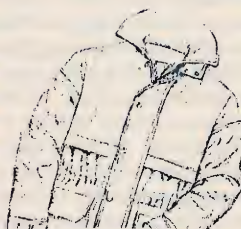
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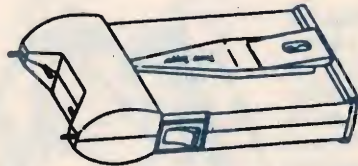
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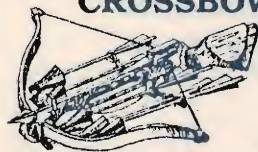
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water filter system...*



The Water One Filter can be pumped by hand or by foot. The canister is held off the ground by wire legs.

### Staff Report

**D**esigned specifically to remove Giardia, the Water One Giardia Filter purifies 1.5 pints per minute through a 0.5 micron replaceable filter. Designed for easy hand or foot operation the pump can also be arranged to backwash the filter for cleaning. While the intake strainer removes larger particulate matter, the replaceable filter, with an estimated life of three years, removes organic and chemical contaminants and effectively removes Giardia cysts 99.9999 percent. A test kit is included with dye to ensure filter is working properly. Canister size is 4"x3 1/8" diameter. Weight is 1 lb. 1 oz. Order filter for \$59.95 plus



The in-line strainer prevents large particles from entering the filter. It is weighted to stay under water and prevent air from coming into unit.

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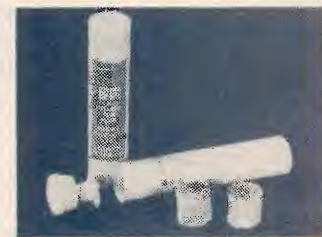
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# Water Purification

*Filters and systems you may need to use some day. . .*

By Jim Boorman

**T**HE purification of water should be very simple. You merely remove, neutralize or render harmless any contamination while at the same time retain the necessary nutritive minerals that we need to stay alive. That sounds easy enough, just boil your water for twenty minutes or dissolve a couple of disinfectant tablets in it and, VOILA!, instant drinking water, right?

Maybe that's all you needed to do a few years ago and I'm certain that you can still find water somewhere in this country that may require only that measure but it won't be found around any human habitation or recreational area. The water commonly found in most of the United States will make you quite sick if you had to drink it regularly with boiling as your only

water and their advantages and disadvantages.

Simply boiling your water will kill all biological pathogens within twenty minutes but it will do nothing for the turbidity or chemical pollution seemingly inherent in our nation's water supplies.

Stabilized Iodine (Potable Aqua tablets or Globaline) works very well as a disinfectant against all pathogens except viruses and it does work against many of those. It works with full effectiveness in a wide range of temperature and pH conditions and is nearly impossible to overdose with. This is the EPA's drug of choice for emergency drinking water disinfection but it will do nothing for chemical pollution or turbidity.

requires a very narrow temperature and pH range for optimum effect, it will not last long in storage and will not work effectively on amoeba and cysts. Chlorine will also react with organic wastes in the water to form THMs or Trihalomethanes which are by-products of the chlorination process and a known human carcinogen. It is the safest product, however, for those who cannot tolerate iodine provided that you remain within its designed parameters.

Even distillation will not work effectively against most common forms of contamination much to the chagrin of those who have expensive distillation units. Sure it kills and removes all biological pathogens and turbidity but many chemical and radionuclide contaminants will distill right along with the water.

Charcoal filters will remove most of the petrochemical, hydrocarbon, heavy metal and pesticide contamination but will do nothing for the turbidity, biological pathogens or radionuclides in your water supply. Activated charcoal filters must be changed often and they will tend to encourage the growth of bacteria effectively becoming its own source of contamination. There has been some evidence, of late, linking the continual exposure to charcoal as a cause of gastrointestinal cancer so a fine particulate filter is needed to prevent any suspended charcoal from entering your water supply.

Reverse osmosis desalinators are probably the most efficient method of

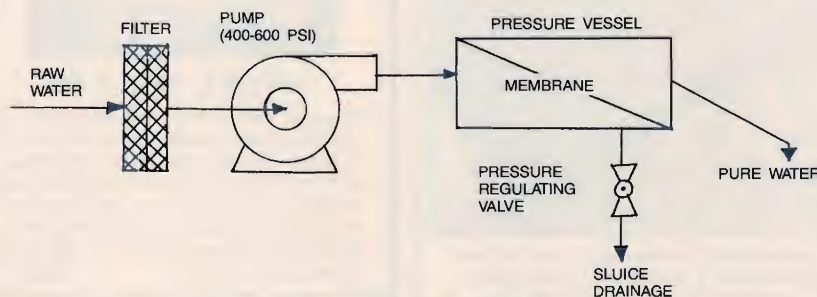


FIGURE 1. TYPICAL REVERSE OSMOSIS SYSTEM

method of disinfection. Let's take a look at the many methods that we have available to disinfect and clean our

Chlorine treatment (Halazone) has very good virucidal value and works against all bacteria but it is not stable,



cleaning your water on the market today. They will remove all biological and most chemical pollutants, turbidity, heavy metals and radionuclides from your water. Their only drawbacks are that they can clog easily and therefore require a fine particulate pre-filter, they require disposal methods for their sludge discharge and they are relatively expensive. the Seagold "Water Lever" and "Survivor" (both

process. All of these systems are expensive and many of them are designed for large volume in excess of 50,000 gallons per day, but with a little ingenuity they could be effectively downsized for much smaller operations. The lime or lime-soda softening system is large and complex and requires highly caustic chemicals and careful monitoring but the chemicals could be manufactured in a survival

of boiling to kill any viruses that may have gotten through the filter and to provide aeration to help eradicate Radon and any gaseous chemicals that can be released by this method. The Katadyn's .02 micron pore size is small enough to remove even many viruses and it is thought that the silver content of the filter canister also provides some virustatic action. Two other good filters on the market are the First Need and the fine H2OK filters which will both provide the fine particulate filtering of the Katadyn filter but will not provide the virustatic properties.

If heavy chemical or radionuclide contamination is present or expected then I suggest that you obtain and utilize a reverse osmosis desalinator such as the Seagold Water Lever or the more compact Survivor units. Unfortunately nothing else will accomplish this task.

I might add at this time that we are discussing disaster conditions in this article where your local water works is inoperative or contaminated and you must get your water where you will.

A good, working, stationary system can be put together by first providing a settling tank to remove gross contamination such as mud, rocks, leaves or dead fish and animals that will befoul the remainder of the system. You can then run this water through a fine sand or percolating earth filter to remove as much particulate and organic matter from the water as possible.

The third step is to provide intense spray aeration such as a spray tank to kill bacteria and viruses and to eliminate Radon from the water without admitting new contamination from the environment.

mechanically operated) are priced at \$1825.00 and \$695.00 respectively and their 12 volt model is priced at \$2585.00.

A well designed percolating earth filter will remove a good deal of the biological contamination, most turbidity, and some chemical pollutants present in the water but it must also be changed frequently (or back flushed) and enough contaminants will still get through to cause serious problems.

Spray aeration is extremely effective against bacteria and viruses with the added benefit of removing Radon from your water. It will not work effectively, though, against amoeba and cysts or any chemical or radionuclide contamination.

Ozone disinfection units are quite effective on all forms of biological and chemical contaminants but the process will actually create more toxic forms of many chemical pollutants, the oxidation process plays havoc on the mechanical and piping systems, its cost is extremely high, it provides no residual disinfection properties and it requires a lot of power and monitoring.

Ultraviolet radiation disinfection works well on bacteria and viruses (except for the photo-reactivation of some bacteria) but it does not work well on cysts and spores or any other form of contamination.

Radium and uranium and most other radionuclides can only be removed by reverse osmosis, ion exchange methods or the lime or lime-soda softening

situation with the aid of a methane digester. The ion exchange equipment requires little monitoring but it does require different exchange mediums for different types of radionuclides.

The first step in designing a water purification system is to determine your needs. What contaminants are present or expected and in what quantities. There is no need to build a large, fancy and complex system if a simpler and inexpensive one will do the trick. Remember the K.I.S.S. principle. The second factor is to consider whether it will be in continuous use or used on a cyclic basis to replenish a storage

reservoir and what will be your usage rate. Finally, will it be stationary or portable, vehicle carried or carried by a single person.

A good system for the person on the go would be a Katadyn Pocket Filter used in conjunction with a coffee type pre-filter and followed with an activated charcoal filter and two minutes

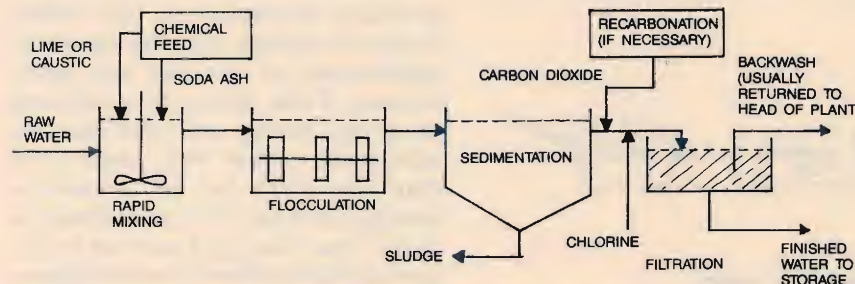


FIGURE 2. SIMPLIFIED SCHEMATIC OF LIME-SODA SOFTENING SYSTEM

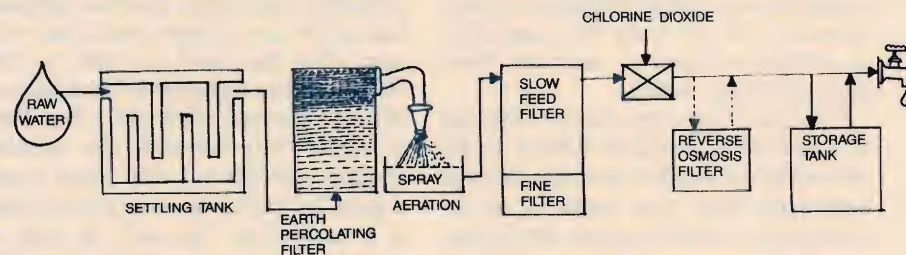


FIGURE 3. BASIC COMPLETE WATER SYSTEM

At this point you should attempt to remove as much of the chemical contamination as possible by passing the water through a slow feed activated charcoal filter with an attached fine particulate filter to remove suspended and contaminated charcoal particles from the water.

If chemicals are to be used, chlorine



# Water Purification

in the form of Chlorine Dioxide, is the disinfectant of choice. Chlorine Dioxide will not form THMs in the water (as will all other forms of chlorine) if it is manufactured by the mineral acid method which is the easiest to use and monitor. Even though Chlorine Dioxide is a very poisonous and volatile gas (explosive in air) there is little

be the case in a real disaster scenario. I recommend that some form of intense aeration also be employed to remove Radon and any gaseous chemicals.

Boiling water cannot be over emphasized as a method of disinfecting water but some arguments exist over how long you must boil your water to accomplish total disinfection. I recom-

ester batting or lining the can with a fine cloth to filter out any suspended charcoal particles. Then fill the can with several inches of the activated charcoal that you have made (crushed to small particles) and pour your pre-filtered water in on top of this and let it drain into another receptacle.

A final word of caution. All of the processes mentioned in this article require at one time or another, material replacement or cleaning and maintenance. These filters have collected some very strong and infectious contaminants, contact with which could ruin your whole day not to mention wasting all of your fine precautions up to this time. Use great care not to contact this filtrate directly and to dispose of it properly and down stream of your water supply. Use gloves and tools if you can and sterilize these items when you are through. The inside of the filter canister must also be cleaned. ●

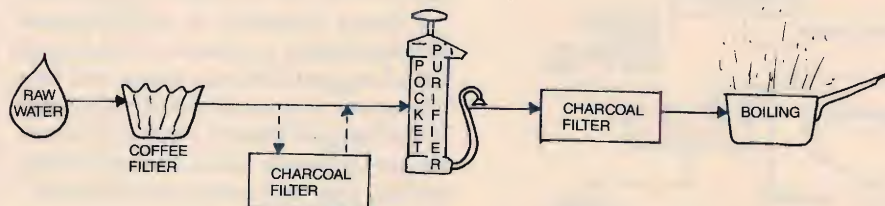


Figure 4. BASIC EMERGENCY WATER PURIFICATION SYSTEM

danger if it is applied and handled properly. The systems on the market for this method are not prohibitively expensive and the residual disinfection properties are very good, continuing to disinfect your water throughout your storage and piping system. The water is now ready to be used or stored.

Again, if you should encounter or expect heavy chemical, radionuclide, heavy metal or pesticide contamination then you should utilize a reverse osmosis desalinators (extremely expensive at high output) immediately before the chlorination process or set up a lime or lime-soda softening system before your charcoal filter. Conventional treatment methods such as alum-coagulation, settling, filtration or chlorination will not have the capability to remove radium or uranium from your drinking water.

If you don't have the money required to construct a complex system or for one reason or another you have become separated from your supplies or retreat then a simple system can be constructed from several layers of finely woven cloth such as ripstop nylon or fine 60/40 cloth as both a coarse and fine filter for organic contaminants, a coffee can activated charcoal filter for chemical contaminants and finish with twenty minutes of boiling. This method will give you passably good water for a short time if the chemical, heavy metal, pesticide and radionuclide levels are not too high. This also works well if you run out of disinfectant tablets or bleach which may very well

mend being on the safe side by boiling your water for the full twenty minutes because you really don't know where or what your next water source will be when travelling in a disaster situation (which includes relocation, voluntary or forced). This is particularly true at higher elevations where water does not boil at its normal 212 degrees.

Activated charcoal can be made quite easily, as can charcoal for flint and steel fire making and layered charcoal filters, by placing wood chips or nuggets (preferably hardwood) or good cotton material such as T-shirt cloth into a sealable steel can such as a tobacco can and punch a small vent hole into the top of the can to vent the gases produced during the charcoal process. Do not let any oxygen come into contact with the wood or cloth as this will cause the material to burn instead of form charcoal although a few drops of water will enhance the process. Tightly seal the can and place it into a good bed of coals next to the flame of a camp fire. You will be able to see the hot gases escaping from the vent and they may even flame a little. When the gases stop escaping from the can then the charcoal process is complete. Remove the can from the fire and allow it to cool before you transfer the contents into a clean, dry and sealed storage container.

A simple charcoal filter can be made by punching a few small drain holes into the bottom of a coffee can and either filling the bottom of the can with an inch or so of cotton or poly-

## Water Purification Equipment Source List:

### Potable Aqua —

**Wisconsin Pharmacal Company**  
A Division of Badger Pharmacal, Inc.  
2977 Highway 60 - P.O. Box 198  
Jackson, Wisconsin 53037

### Halazone —

**Abbott Laboratories**  
Pharmaceutical Products Division  
North Chicago, Illinois 60064

### Chlorine Dioxide —

**Rio Linda Chemical Company, Inc.**  
2444 Elkhorn Blvd.  
Rio Linda, California 95673

### Katadyn Purifiers —

**Provisions Unlimited**  
P.O. Box 456, Dept. 400  
Oakland, ME. 04963

**First Need, Seagull IV,  
Seagull IV X-2, Spark-L-Pure**  
**General Ecology, Inc.**  
151 Sheree Blvd.  
Lionville, PA. 19353

### H2OK

**Bilas Distributing Company**  
1026 Irving  
Royal Oak, MI. 48067

### Pocket Purifier (the straw type)

**Pocket Purifier Southwest, Inc.**  
1442 Camino Del Mar, Suite N  
Del Mar, California 92014

### Water Tech

**Water Technologies Corporation**  
4601 Platt Road  
Ann Arbor, Michigan 48104

### Air Well

**Synergy Airwell, Inc.**  
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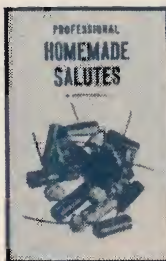
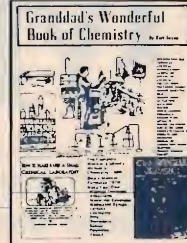
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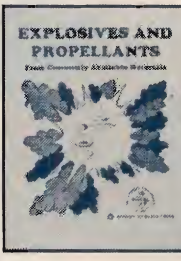
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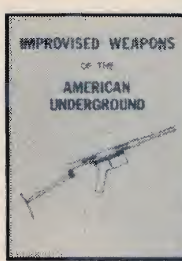
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By Jim Benson

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pistols, assault rifles, shotguns, sniper rifles and competition rifles and air guns. China Sports also imports non-corrosive .223, 7.62 x 39 mm, 9 mm NATO and .22 Long Rifle ammunition and magazines and services its guns, which are each sold with a one-year warranty.

We were loaned samples of Norinco's Type 54-1 Tokarev semiautomatic pistol and PS-01 .22LR semiautomatic pistol for shooting and evaluation. The Type 54-1 is the Chinese version of the World War II-era Soviet Tokarev pistol which is no longer in service with

*(Continued on page 50)*



# Professional Locksmithing Tools

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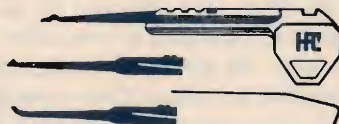
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This tool was designed to decode the exact combination of a sesame padlock without damaging the lock. Detailed instruction included.

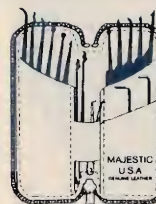


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## MD16

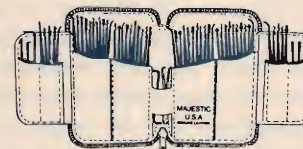
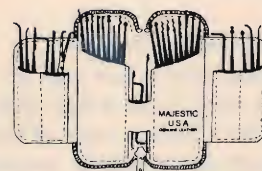
Shirt Pocket Size, Top Grain Cowhide Leather, Zippered Case, has 16 Picks, Tension Wrenches and Broken Key Extractor.

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Hip Pocket Size, Top Grain Cowhide Leather, Zippered Case, has 32 picks, Tension Wrenches, Broken Key Extractor.

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# Type 54-1 Tokarev, Type PS-01 Pistols



Besides the thumb operated trigger lock safety on the left side of the pistol's receiver near the hammer, there is also a half cock position for the hammer. The hammer is shown here in full cock position.



The PS-01 is light, with fully adjustable sights and 7-inch barrel.



Rear sight of the Tokarev is a fixed notch. Front sight is a fixed blade.

(Continued from page 48)

Soviet forces but still in widespread use around the world. The Type PS-01 is the Chinese copy of the Soviet .22 target pistol which, we were told, has also been used by Soviet military forces.

The Tokarev fires the 7.62 x 25 mm cartridge, which is almost identical to the 7.63 Mauser (.30 Mauser) round. An interesting feature of the pistol is that the whole hammer mechanism (hammer, sear, disconnector, sear spring and mainspring) can be removed in normal field stripping for ease of cleaning and lubrication.

All major parts of the Tokarev are steel. The grips are black plastic. The gun has a black finish. There are two safeties, a traditional thumb-operated lever that locks the trigger and a half-cock hammer safety. Magazine capacity is 8 rounds.

We were concerned when we discovered, during our review of the owner's manual, that this pistol has a service life of only "3,000" rounds. We inquired about this and were told by a

China Sports spokesman that the 3,000-round service life statement was incorrect, the result of a typographical error. The actual service life is about 30,000 rounds.

In test shooting nearly 120 rounds of Norinco 7.62 x 25 mm ammunition in the Type 54-1 Tokarev, we did not experience one jam or any other malfunction. We did not chronograph the firing but we noted these rounds are fairly high powered and China Sports states that the 7.62 x 25 mm round has a muzzle velocity in the Type 54-1 of approximately 1,500 feet per second.

The Type 54-1 sights are fixed. We had some difficulty in using the cor-

rect sight picture for best accuracy with this gun. This is a problem we've encountered before with handguns and long guns and requires practice and observation to determine how to align the sights. However, we did find that the Tokarev was reasonably accurate in our limited test shooting at ranges of from seven yards to 50 or more yards. With more practice we are confident we could greatly improve our accuracy with this pistol, which we found to be reliable and comfortable to shoot.

The PS-01 is just out on the U.S. market, having only been available here since about November.

## Type 54-1 Tokarev Pistol: Tech Specs

Caliber	7.62 x 25 mm (.30 Mauser)
Action/operation	semiautomatic, blowback
Length	7.7 inches
Barrel length	4.6 inches
Weight	29 ounces
Magazine capacity	8 rounds
Sights	fixed, front blade, square notch rear
Price, suggested retail	\$250
Importer	China Sports, Inc., Dept. ASG, P.O. Box 2566, Santa Fe Springs, CA 90670; (213) 942-2383

## Type PS-01 Pistol: Tech Specs

Caliber	.22 Long Rifle
Action/operation	semiautomatic, recoil
Length	10.88 inches
Barrel length	7.2 inches
Weight	16.2 ounces
Magazine capacity	10 rounds
Price, suggested retail	\$200
Importer	China Sports, Inc., Dept. ASG, P.O. Box 2566, Santa Fe Springs, CA 90670; (213) 942-2383





The thumb operated trigger lock safety and magazine release located at the base of the butt.

This is another gun of all steel parts except for black plastic grips. Finish is also black. The comfortable angle grip is designed for right-handed shooters. The grooved muzzle end of the barrel appears to be intended for a suppressor.

With its light (2-3 pounds) trigger pull, 7-inch long barrel and excellent front and adjustable (click adjustable for windage and elevation) rear sights, we found the PS-01 to have quite good accuracy. Firing standard velocity Norinco .22LR and PMC Zapper .22LR ammunition through the gun we encountered a few jams — something common with semiauto .22s. These were each quickly cleared and the weapon continued to function well overall as we fired nearly 10 10-round magazines full of ammo through it. We also had problems inserting one of the two 10-round magazines we had for the pistol until we discovered that the little button on the side of the magazine — which is pushed down to depress the magazine spring for ease of loading — was catching on the inside of the magazine well. By simply pushing the magazine button inward, the magazine would then fit into the gun perfectly and we were able to continue firing.

These two pistols are good quality and operate reliably. They would be useful weapons for a variety of survival and sporting purposes. ●

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Canada, Alaska:

# Yukon River Sojourn

*A two-summer, 2,000-mile long journey through rugged wilderness. . .*

By Dr. Susan L. Poretz

**W**E awoke with our hearts thumping. Silently we lay in our sleeping bags, alert to the movements nearby. Snorting, toothpopping, crackling brush. During some of those seconds which seemed like hours our ears strained to make out who belonged to the sounds. We were very conscious of the thinness of the tent wall. Finally a look passed between us acknowledging what we were trying to deny — bear!

It was July, 1986, and we were camped on the banks of the Yukon River somewhere miles below the Indian village of Kaltag. This was the most desolate stretch of the almost 2,000-mile long river whose headwaters begin in Yukon Territory, Canada, and end in the Bering Sea — across from Russia. This stretch goes almost 175 miles between two villages with no more than three or four Indian fish camps or trappers cabins in between — a virtual wilderness.

We had arrived at that campsite by canoe, a 17-foot Coleman canoe. Colemans, we had been told by a friendly and talkative airplane companion who hailed from Alaska, were virtually indestructible. This was the second summer that we were “on the river,” our journey had begun the previous summer in Whitehorse, Yukon Territory, almost at the river’s headwaters.

We saw a total of 18 bears this second summer. The previous summer we had seen only two bears in the six weeks of canoeing and those were only glimpses from long distances and with a lot of water in between. In contrast, this summer more than half our encounters with our furry friends were on shore, with the incident I am describing the closest contact we were conscious of. There were mornings we’d awaken and find bear tracks around the tent, but they were unannounced visitors who had gone away as quietly as they had come.

We saw bears in many and various situations, stealing fish from the racks of salmon drying at an Indian fish camp, eating, playing, defecating, facing off encroaching bears and complaining (we assumed) about the mosquitos. It seems that the only things we didn’t observe were bears “making love” and fighting.

Most of our sightings were of black bears and most of them were big, with dark luxuriant fur — although one looked positively mangy — and with a surprising, for their size, fluidity in their movements. Fortunately we also had the opportunity for a good look at a mother grizzly and her two cubs when they wandered to within 200 feet of our campsite. They were using one of the well travelled bear trails through the alder thickets near shore. We had noticed the trail when we “put in” for the day, but after canoeing for close to 20 hours, the thought of getting into the canoe to search for another camp site was not welcome and so we stayed.

We were in the process of pitching the tent, when we noticed them. They were ambling along and obviously hadn’t seen us. Suddenly, the mother stopped (in response to our scurrying around to get our camera) and stood up on her hind legs to get a better look. The cubs, at first were lackadaisical, but quickly they started to emulate momma bear, and then we were all standing, looking at each other. In that split second, mother grizzly decided to pick another spot to look for salmon and within seconds, they were gone and we were left the campsite.

But bears were only part of the adventures during our total of 12 weeks sojourn on the Yukon. The trip began with our graceless entry into the overpacked canoe on a wet and dreary afternoon and the procedure of trying to learn to paddle as the Yukon current propelled us downstream. We each

had been in a canoe on no more than several short one-day excursions and here we were beginning, in the summer of 1985, a six-week canoe trip into the wilderness. Some would say that we had more brawn (from our pre-canoe trip weight lifting regimen) than brains but we figured that over the course of the first two weeks we would become proficient enough to enable us to go through the Five Finger Rapids, one of two sets of rapids on the river, without incident.

We were half correct, we did “go through” both the Five Finger and Rink Rapids, but not without an almost swamp as our canoe filled up with water because we hadn’t loaded the canoe properly for the rapids. Had the rapids been a little longer, we would not have been so lucky and according to stories, there have been many not so blessed.

People have died in Five Finger Rapids. The rapids are not much by Colorado River standards: waves up to a meter high with strong eddies on either side and a crosscurrent, but the water is ice cold! Five Finger Rapids got its name from four monolith-like islands in the river and five channels of water that go around them. We had been told by all the people we had encountered upriver that the extreme right channel was the safest. During the steamboat era, which ended in the early 1950s, this channel was where the transportation companies anchored a heavy cable to winch the boats up through the swift water. So preoccupied were we with keeping the canoe afloat as water crashed in over the bow (and me), that we saw neither the cable nor the audience which may have been gathered high above. Those heights are one of only five places in 2,000 river miles where a road comes near the Yukon.

But the adventures that summer



It's wise but bulky to wear a life preserver in a canoe. Tarp offers additional rain or spray protection for gear.



The Yukon River near its beginning in Whitehorse, Canada.



Spruce trees drying prior to being used to make a fish wheel.

were quite different from this one. To begin with our transport then was an 18-foot cedarstrip (yes, wood!) canoe which we lovingly named Bindlestiff. The name came from a *New York Times* Crossword puzzle and although hobo would have been easier to put on the canoe it was Bindlestiff that we painted on its hull on that rocky beach of Lake Laberge two summers ago. Lake Laberge, immortalized by Robert Service in his famous ballad "The Cremation of Sam Magee" was for many gold hunters the beginning of their hazardous journey to hit pay dirt in the Klondike.

Bindlestiff was sleek, fast, responsive to our commands and handled well in the water; in contrast our canoe the second summer, the second-hand Coleman — which we also christened Bindlestiff but which never became "the Bindlestiff" to us — was like driving a tank.

Days on the Yukon were an unending procession of ever changing scenery; silence broken by: the river's noise as it gurgled and boiled away; eroded trees and river banks crashing into the water, an occasional plane and birds. Gulls, arctic terns and spotted sandpipers have got to be the nosiest and noisiest birds. As we drifted by their territories, they were usually not content to just come and "check us out" but often indicated their displeasure at our passing by divebombing us. In contrast, the peregrine falcons were equally annoyed by our presence but confined themselves to screaming complaints.

Although the Yukon is a wilderness river, it has been inhabited by Athabaskan Indians, and Yupiks (inland Eskimos) for centuries and they have left their marks. The remains of tents and smokehouses at deserted fish camps stand as mute testimony to a former

existence.

Dogs chained to stakes still seem to surround the many Indian houses we passed but they are merely accouterments kept from the past. They once had a functional use in propelling dog sleds through the long Arctic winter snows but now snowmobiles have taken their place and all the dogs do is howl. Foodstamps and welfare have eliminated the imperative for the natives to fish the river for the food to feed them and their dogs.

Although there are still some fish camps that continue in use, much of the fishing on the lower river is being done to supply Japanese businesses with roe. At many sites we saw fish being illegally tossed back into the River once their valuable eggs were removed, and it was not uncommon to see their bloated carcasses floating in the water, or worse yet, washed ashore and rotting. Those easy pickings were



# Yukon River Sojourn

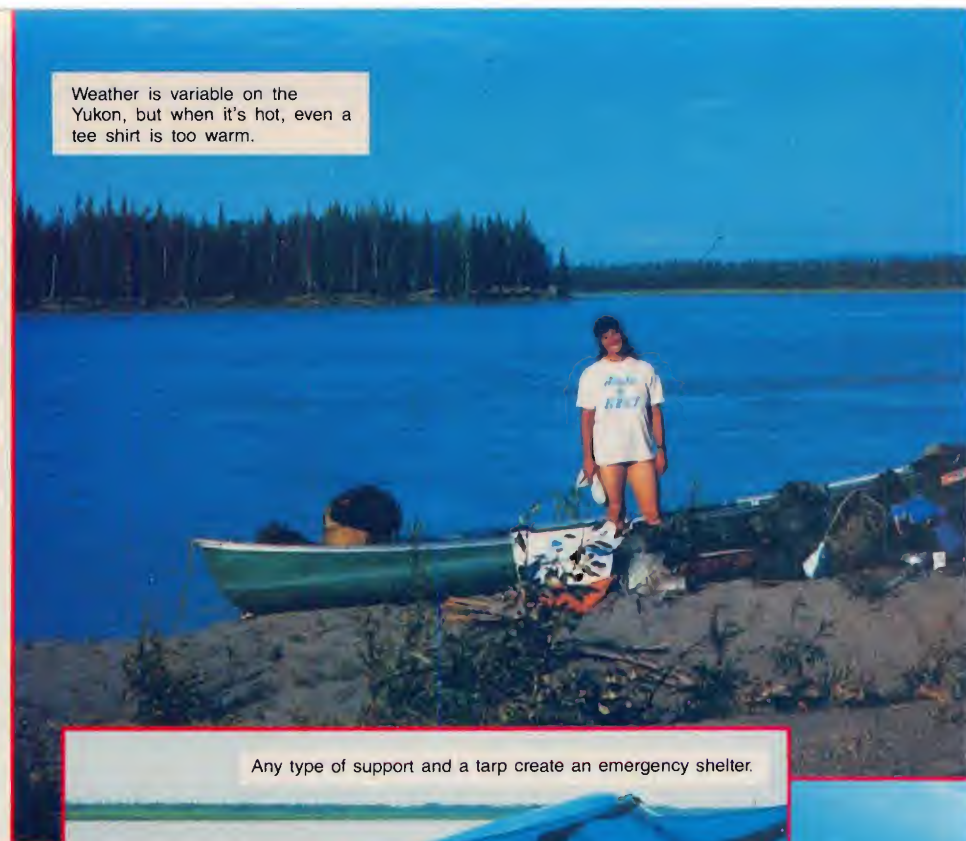
drawing the bears to the river banks this past summer and giving us all our bear stories.

Whereas we passed many deserted fish camps along the entire river, it was only in the Canadian section that we passed entire villages that had been deserted — victims of progress in the guise of a road connecting Whitehorse and Dawson City (the site of the famous Gold Rush). Nature doesn't respect unoccupied cabins, and their skeletons with roofs in various stages of collapse, along with the remains of household implements, were reminders of the former inhabitants' previous existence. The cemeteries with their spirit houses — midget houses containing odds and ends, perhaps to make the deceased's passage into the next world more comfortable — were for the most part in better condition than were the natives' former dwellings. Perhaps the living were trying to keep in touch with their roots even though their original homesites had been abandoned.

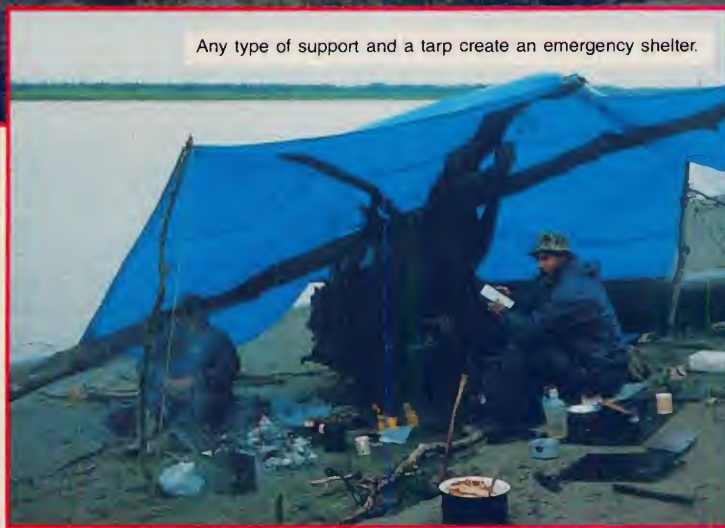
Our encounters with natives and whites were with one exception, very positive. Unfortunately that one experience was in Kaltag where some natives answered our friendly waving with obscenities and shouts of "white man get off our river." This had a disquieting effect on us, and although we paddled hard to get away from that village as quickly as possible, the words echoed in our ears for a long time. The positive memories include being offered food, coffee, alcohol, hash and pot (we accepted the legal commodities); Phil taking a muki — an Eskimo steam bath which on this occasion was for males only; exchanging pleasantries with the occasional passing motorboatmen; serendipitously meeting a native (he had accidentally moored his boat in the cove we were camping in).

**The Weather** — This past summer the weather was 180 degrees different from the pattern of the previous one. For the first 2½ weeks this summer, we sweltered under the blistering sun. It rose by 4 a.m. and didn't set until after midnight and so on most evenings the tent was an inferno and unusable until after 11 p.m.

Underwear and lifepreserver were the clothes for canoeing, but once we alit, our clothes quickly went on be-



Weather is variable on the Yukon, but when it's hot, even a tee shirt is too warm.



Any type of support and a tarp create an emergency shelter.



cause hungry mosquitos were greedily eyeing our bodies. In contrast, during the last three weeks of this summer, the weather turned wet and windy and we rejoiced during those brief periods that the sun did appear, and begged it to stay awhile longer.

Wet and windy was an understatement. The combination of the two elements kept us confined to camp for many days and when we braved the elements, we didn't go very far compared with all the paddling energy we expended. That wet and windy weather led to one of the most uncomfortable nights on the trip. We had been developing a form of "cabin fever" from being forced to remain in the tent for one and one-half days as the wind howled and the river was covered with white caps. At about 9 p.m. of the second day there was a break in the weather; we decided that the storm was over and that it was a good time

to pull an "all-nighter" to make up for lost canoeing time. As was typical during those three weeks of inclement weather, a lull in the weather was followed by a rebound effect which usually caught us about one-half hour after we had broken camp and were underway. This evening was no exception.

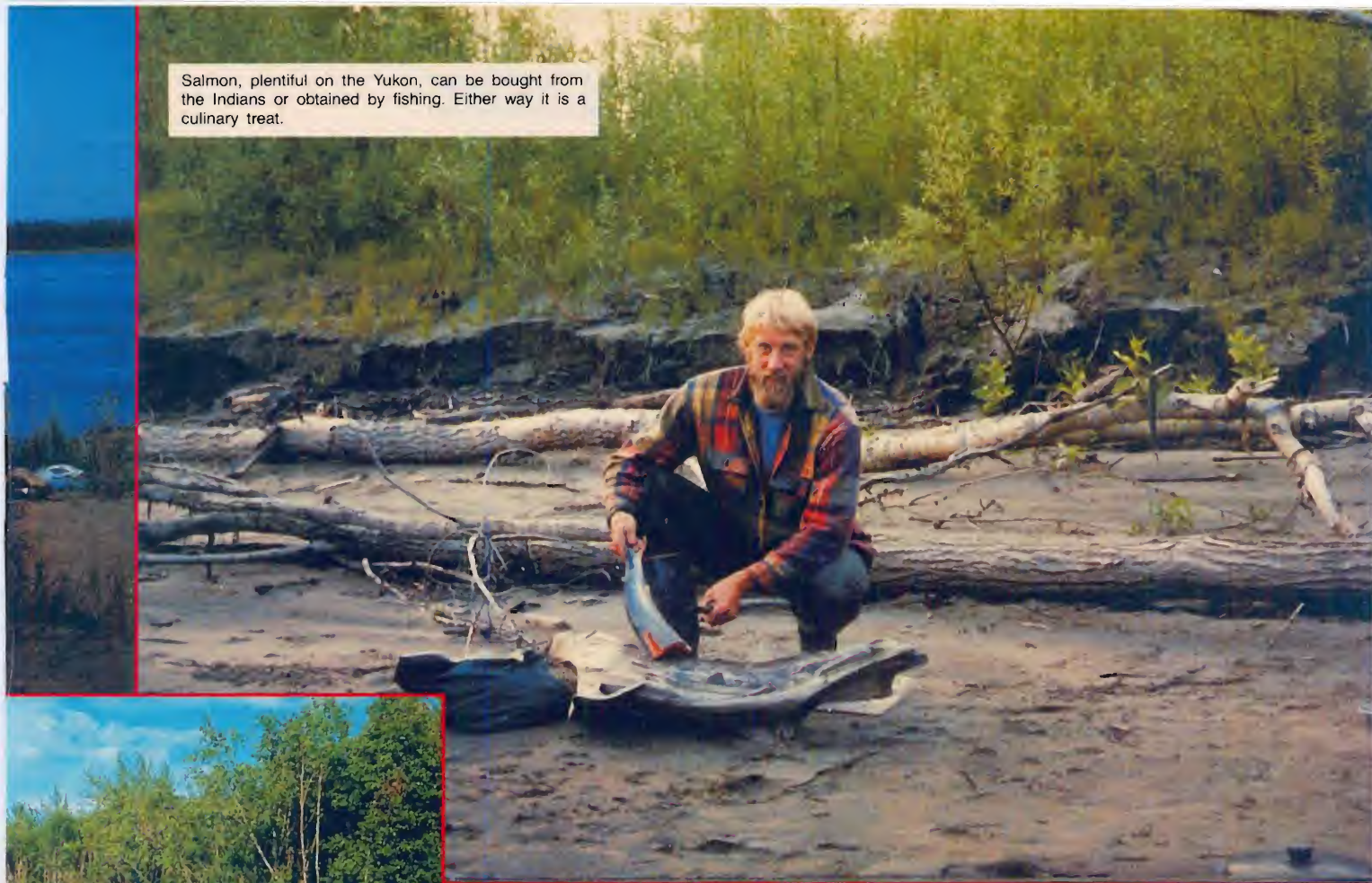
And so we found ourselves at 2 a.m. in pitch dark, facing wind and high waves as we entered the main channel from one of the sloughs we had sought safety in.

It was physically impossible and would have been irresponsible, to go forward and so we retreated back into the slough to seek a campsite. But because it was so dark we were forced to blindly grope each time we pulled ashore and every time we attempted to explore the river bank we hit quicksand-like mud.

Realizing that a campsite was not



Salmon, plentiful on the Yukon, can be bought from the Indians or obtained by fishing. Either way it is a culinary treat.



A typical campsite. The blue tarp serves to ward off the intense arctic light.

This 12 gauge shotgun gave the author a feeling of security on the trip. Canada issues free permits for rifles and shotguns.



an option, we tied the canoe to an overhanging branch and tried to sleep, hunched over, in the canoe under the tarp which we had draped over upright paddles. We realized it was finally dawn when we began to discern the blue of our tarp. Believe it or not, I managed to get some shut-eye despite all kinds of contorted postures, and I think back to that evening with warm memories as of a trench war that one has survived.

On the other hand, the most comfortable night of the entire trip was spent on a big sleeping sofa under a mosquito net in the home of John and Mary Massy, one of the few white couples living in an Indian village in the lower Yukon River basin. As with other whites who migrate to Alaska from the lower 48, John does all kinds of work, from commercial fisherman to oil/gas dealer, as well as his latest

enterprise — a video store serving the village of Russian Mission. All his new occupations are very different from his previous existence as a teacher.

Supper was barbequed freshly caught salmon eaten while seated at a table and on chairs — the first such civilized luxury in almost four weeks. The men had caught about 20 fish with a float net in no more than 10 minutes and it was on them that we dined. What we didn't eat that evening we prepared for drying (Indian style) in a communal project after dinner at 11 p.m. in daylight.

And in between were the bears. Which reminds me, about the bear who

started this reminiscence. . . Phil could stand listening to the sounds from inside no longer, preferring to face his adversary rather than be trapped in the tent *cum* cocoon. He unzipped the panel and as he looked out he confronted our visitor — a black bear — who returned his stare and popped its teeth threateningly.

After unsuccessfully trying to intimidate the bear into leaving by using a "bear" whistle (known as an Acme Thunderer on basketball courts), Phil pointed the shotgun — which was our constant companion — up into the air and fired off a round of bird shot. Luckily for the bear, he heeded the warning, since the next shell contained a slug meant for killing. The bear lumbered off, although very arrogantly and not nearly as fast as we would have liked.

Our voyage is finished, but the McKenzie River, a 1,600-mile Canadian wilderness river extends its lengthy invitation. We have truly seen the last American frontier and while we may think we conquered it and profited from the experience, in actuality Alaska really captured us — our hearts and our souls. Lucky for our employers the midnight sun doesn't shine all year. ● (Continued on page 64)



# Gas, Germs and Terrorists

*The technology required to make a chemical or biological weapon is far less sophisticated than that needed to build a nuclear weapon...*

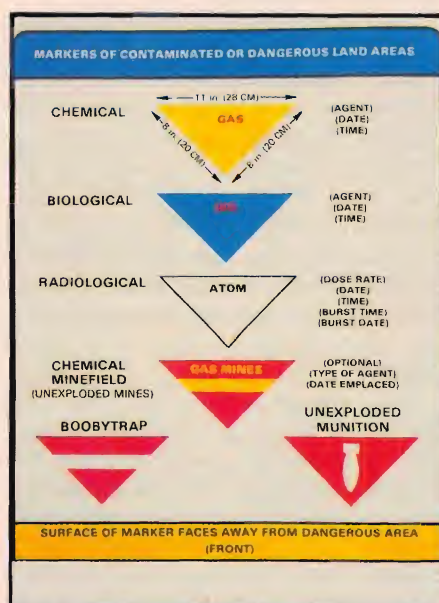
*This is the first of two articles dealing with the possibility of terrorist use of chemical and biological weapons and what can be done about it — The editors.*

By Michael Pietrantonio

**I**N 1960 a small group of men launched a biological warfare attack against New York City.

Standing on street level subway gratings, a few of these men sprinkled a fine powder through the gratings and into the subway system of the city.

Others in the group boarded subway trains carrying in their pockets what appeared to be ordinary light-



Warning markers used by the military to indicate contaminated areas. Might we be seeing such markers in the aftermath of a terrorist C/B attack?



Swiss civil defense teams practice decontamination techniques during a civil defense exercise. The threat posed by terrorists with C/B weapons might be a good reason to reactivate the U.S. civil defense system (Swiss Federal Office of Civil Defense).

bulbs. As the trains travelled between stations the agents would cross from one car to another. When they were between cars they would drop the light-bulbs to the tracks where, upon breaking, they would release the same fine powder that was being sprinkled through the street gratings.

The powder was in reality a biologically active substance. The air currents and wind turbulence within the subway tunnels served to diffuse the powder so efficiently that by the end of the day the entire New York City subway system contained traces of the powder.





New York City. Terrorists planning a C/B attack could choose to target any one of hundreds of modern office buildings, or they could target the entire city.

Fortunately for New York, the agents who carried out the attack were not in the employ of some terrorist group but were instead operatives of the Special Operations Division of the Army Chemical Corps. The material they were using, while biologically active, was also harmless to people. Their goal was to find out just how easy it would be to mount a clandestine biological warfare attack against an urban target. The answer they arrived at was that such an attack was frighteningly easy.

There has been much speculation in the recent past concerning the possibility of a terrorist group obtaining the materials necessary to construct a nuclear device. The U.S. has even established a special unit called the Nuclear Emergency Search Team, NEST, to deal with such an occurrence. (See *ASG* Nov. 1985, for more on NEST).

While the prospect of nuclear terrorism has been given much attention, far less attention, at least publicly, has been paid to the possibilities of terrorists using chemical or biological weapons in their operations.

The technology required to manufacture a chemical or biological weapon is far less sophisticated than that needed to build a nuclear weapon. It is within reach of even lone individuals working in their homes. Any nation, group or lunatic who can brew beer or pickle olives can manufacture a biological weapon with the capacity of kill-

ing tens of thousands or more. It is for this reason that we are likely to see a chemical or biological terrorist incident before we see a nuclear one.

Consider the following. In 1984 French police raided a safe-house in Paris which belonged to the West German Red Army Faction terrorist group. In addition to the "normal" items one would expect to find, forged documents, weapons, propaganda leaflets, etc., the police found a homebuilt chemical laboratory and medical literature dealing with bacterial infections. In the bathtub were found flasks which contained cultures of *Clostridium botulinum* — botulism toxin, one of the most deadly naturally occurring toxins in the world.

Late 1987. Israeli intelligence announces that it has evidence that Abu Nidal is attempting to persuade Syria to furnish his group with unspecified chemical weapons.

September 1988. The U.S. State Department announces that Libya now appears to be on the verge "of full-scale production" of chemical weapons. According to NBC News, the Libyans have built factories capable of producing thousands of pounds of mustard and nerve gas a day.

Chemical and biological weapons in one form or another have been used in warfare throughout the recorded history of mankind.

As long ago as 600 B.C., Solon of Athens used hellebore roots to con-

taminate the water supply used by the army of Kirrha. The result was an outbreak of diarrhea so severe that it left the army of Kirrha too weak to fend off Solon's attack. Solon won the battle.

During the sieges of the Athenian cities of Platea and Velium (431-404 B.C.) the Spartan attackers burned mixtures of sulfur and pitch to create clouds of sulfur dioxide intended to drift over the besieged cities. Sulfur dioxide is about 25 percent as irritating as the chlorine gas used in World War I.

In the Middle Ages the bodies of plague victims were often catapulted over fortress walls in an effort to spread disease within.

European settlers gave natives in North and South America clothing and blankets that had been used by victims of smallpox and other diseases, in attempts to foster epidemics in the native populations.

World War I saw the use of poison gas on a massive scale. Some 124,000 tons of gas were used by all sides during the war.

World War II saw a standoff in the battlefield use of poison gas, at least in the European theater. Both sides had large chemical arsenals and were prepared to use them in response to an enemy first use. Both Hitler and Churchill had detailed plans for the use of biological weapons — specifically anthrax bombs. In the Pacific, the Japanese campaign against China saw



# Gas, Germs and Terrorists

the use of both chemical and biological weapons.

In the 1960s and 1970s the Soviet Union began supplying chemical weaponry to a number of its client states. Egypt used Soviet chemicals against rebel forces in Yemen in 1963. Since then, Soviet chemical weapons have been used in Laos, Kampuchea (Cambodia), Thailand and Afghanistan.

Most recently, the Iran-Iraq war has seen both sides resort to the large-scale use of nerve gases, with high numbers of casualties reported.

Despite international efforts going back to 1925 to stop the spread of chemical and biological weapons, a growing number of nations continue to acquire them. The U.S. estimates that there are now 20 nations with a chemical-biological warfare (CBW) capability, and 10 or so others working on achieving one.

The willingness, even eagerness on the part of large numbers of Third World nations to acquire C/B weapons, often viewing them as a cheap alternative to nuclear weapons, has given them a new sense of international acceptability. Their manufacture, no longer confined to the industrialized nations, has given them a wide-ranging accessibility. It should come as no surprise then, that given both the acceptability and accessibility of C/B weapons, terrorists are beginning to see a role for them in their operations.

**Choosing The Right Weapon** — Which C/B weapons might a terrorist group choose to use in an attack? The choice of weapon is of course influenced by which weapons are available and by the goals of the group.

Whereas a military commander would have a wide availability of C/B weapons from which to choose, it is likely that a terrorist group would be restricted in the weapons they would be able to field. The weapons would be either homemade or supplied by a patron state. In either case they are not likely to be highly sophisticated in nature, though they would still be highly dangerous.

In fact even a crude terrorist C/B attack is likely to be more effective in producing casualties and panic than a well planned, high-tech, military C/B attack. The reasons for this are obvi-



New high-rise buildings are perfect targets for a terrorist attack. The enclosed ventilation systems would rapidly spread a C/B agent throughout the entire structure.

ous. A military attack using C/B agents would target enemy troops who, if their intelligence system was operating, would have advance knowledge that such an attack was coming and be able to employ protective measures. Further, any casualties from such an attack will have access to military medical specialists trained in recognizing and treating battlefield C/B casualties.

The victims of a terrorist C/B attack will have none of the protections available to the individual soldier. Should the terrorists decide to employ any of a number of available biological weapons, the victims and the medical personnel treating them may never even realize that they have been the target of such an attack. Indeed if a very rare disease is used by the terrorists, it may take quite awhile before the disease is even correctly diagnosed by unsuspecting medical personnel. This is one of the chief advantages for the terrorist who chooses to use a biological weapon. Additionally biological weapons require an incubation period of from a day to a week after exposure before the symptoms of the disease appear. This gives the terrorist plenty of time to escape and may also allow for the spread of the disease by infected individuals still in the incubation period.

Both chemical and biological weapons

possess various strengths and drawbacks for the potential C/B terrorist.

Chemical weapons offer the terrorist a more selective and controllable method of attacking a target. They affect only victims who come into direct contact with them. Unlike biological weapons, chemical weapons present no threat of contagion between individuals. The effects produced by chemical weapons are visible immediately, thus causing a greater psychological impact on victims and non-victims alike.

On the negative side (from the terrorist point of view), chemical weapons are much bulkier and heavier than their biological counterparts. This would tend to make them unsuitable for large-scale attacks. It has been estimated for instance, that four tons of VX nerve gas would be needed to cause a few hundred thousand casualties in a large metropolitan area. Terrorists would also need rather bulky aerosol equipment to disperse the gas. The logistics involved with the acquisition or manufacture of sufficient quantities of chemical weapons, along with the problems associated with their storage and dispersal, make a large-scale terrorist gas attack relatively unlikely.

Chemical weapons would, however, be ideally suited to terrorist attacks against specific, limited, targets such as modern sealed office towers, military command and control posts, seats of government, nuclear power plants, and even individual aircraft or ships at sea. In fact, a current story in intelligence circles is that the airplane crash which killed Pakistan's President Zia, was the result of an assassination plot which used an incapacitating gas on the crew and passengers in the plane in which he flew.

Terrorists considering a chemical attack need not limit themselves to using only conventional chemical weapons. One need only have seen the devastation of the Bhopal gas leak to realize that a coordinated attack on chemical refineries in this country could be catastrophic, since, many are located near urban population centers. Lethal chemicals in transit, whether by rail or road, could also become prime targets for terrorists.

Chemicals might be used to poison export crops and foodstuffs. In fact, the first such occurrence took place in



1978 when Palestinian terrorists injected mercury into citrus products exported from Israel. Though there were no fatalities, citizens in at least three European countries ate the contaminated fruit and became ill. The action resulted in a major blow to the Israeli economy, precisely the stated intent of the terrorists.

Biological weapons offer the terrorist a greater degree of flexibility than do their chemical counterparts. They are both easier and cheaper to make. They are, measure for measure, far more deadly than chemical weapons. They can be delivered to their intended target with greater ease than can chemicals, and there are an almost infinite number of variations of bio-weapons available.

Modern gene-splicing technologies even offer the frightening possibilities of creating "designer plagues." Lest the reader think that "designer plagues" are some science fiction fantasy, an article in *Military Review* in the 1970s by a Swedish geneticist noted that since there are built-in genetic differences between racial and ethnic groups, recombinant DNA techniques might be used to create bio-weapons tailored to attack only those groups with certain genetic characteristics. For example, blacks and southern Mediterraneans are genetically predisposed to sickle-cell disease. Using gene-splicing technology it might be possible to create a bio-weapon which would trigger this disease in those groups.

Bio-weapons can be targeted against either people, crops or livestock, giving the terrorist a wide range of attack options. Diseases and toxins such as anthrax, plague or botulin are examples of anti-personnel bio-weapons. Q fever, African swine fever, and foot and mouth disease attack livestock. Wheat rust and rice blast disease have the potential to devastate the agricultural output of a nation.

The most alarming aspect to the scenario of bio-weapons in the hands of terrorists is the ease with which they may be acquired. As unbelievable as it is, it is possible to order by mail such items as anthrax bacillus and clostridium botulinum — the bacteria which produce the deadly botulin toxin. Supply houses routinely sell these and other potential bio-weapons to labs, universities, and researchers throughout the world. Any terrorist, or crazy for that matter, could quite easily forge a letterhead and place an order.

For the terrorist who doesn't want to leave a paper trail, manufacturing



Chemical terrorism could take the form of sabotage against chemical manufacturing and storage facilities. The Bhopal gas leak incident illustrates the potential destructiveness that could result from such an attack.

a bio-weapon would probably be the way to go. While it is certainly not the purpose of this article to give the potential terrorist a how-to course in bio-weapon production, one very general example should suffice to illustrate how easy such production actually is.

Since the invention of canned food the prevention of food poisoning has been of overriding concern to the canning industry. Many, many thousands of pages have been written on how to prevent the occurrence of botulism toxins in canned foods. Unfortunately, in detailing precisely how one prevents the production of botulin in canned products, the same information inevitably provides a step by step guide on how to cause the production of botulin toxin. Once the bacteria which make the toxin are produced, one need only get a high school microbiology textbook out of the library in order to learn how to culture these bacteria. The end result, a virtually unlimited supply of one of the most deadly toxins known to man.

**No Specialized Equipment** — Bio-weapons have another advantage for terrorists. They can be spread without the need for highly specialized equipment. In fact, insects and animals can be used as vectors for disease causing micro-organisms. It was, after all, rats

which spread the fleas which caused the "black death" plagues in the Middle Ages. Malaria, spread by mosquitoes, is still a problem in many areas of the world.

The greatest problem with bio-weapons from a terrorist viewpoint would be the possibility of a terrorist-caused disease getting out of control and infecting the very people for whom the terrorist is supposedly fighting. It is for this reason that a terrorist group which chooses to use bio-weapons will probably do so in an area far removed from its own base of operations.

For example, while the Iranians and Iraqis were quite content to gas each other, neither side introduced bio-weapons. Most likely this was due to the fact that neither side could have guaranteed that a disease caused by a bio-weapon would affect only the enemy. However, Iranian terrorist groups could be more likely to launch a biological terrorist attack in Europe or the U.S. since there would be no possibility that such an attack might affect the population of Iran.

In a second article we will examine who the terrorists are that are most likely to resort to the use of chemical or biological weapons, what they might hope to achieve and what we as a nation can do to minimize the threat posed by this new form of terrorism. ●



# International Travel Risks

(Continued from page 30)

874 in Athens and the 1986 Pan Am hijacking of Flight 73 in Karachi show that terrorists, after securing the plane, will single out Americans — especially government/military personnel and Jewish Americans — for rough treatment or execution.

The terrorists will demand all passengers' passports. Try to stall or delay handing over your passport by keeping it in your carry-on luggage in the overhead compartment. That way if the hijackers force you to move to another seat, you will not have your passport with you.

Eventually you may have to give up your passport. For those with Jewish sounding names it would be a good idea to carry a pocket edition of the King James version of the Bible and any other Christian religious objects in your hand luggage. Avoid carrying a briefcase, or anything else that might signal to the terrorists that you are a business traveler. If you carry an Official Passport or a Diplomatic Passport, get a tourist passport also. Show this one if you are forced to surrender your passport.

**Activities on Foreign Soil—** After passing through customs, you will need



When staying in a high-rise hotel, be sure to know where the exits are, both to the ground and to the roof.

to find a taxi or bus to get to your hotel. Walking out of the terminal with luggage in hand is one of the most risky times for a traveler. Airports are becoming increasingly crowded, and that makes it easier for pickpockets and thieves. Carry your documents and money in a safe pocket or zipped away in your carry-on bag.

Once at your hotel, make sure you know where every exit is on your floor in case of fire or other disaster. Know

where the fire exit is to go down and the exit to go up to the roof. The disastrous hotel fire in 1986 at the duPont Hotel in Puerto Rico showed that this may be critical information needed to survive.

To avoid attention when out wandering the city, dress as the natives dress. Act like you know where you are going and what you are doing even if you don't. Don't wear jewelry and use a cheap watch to keep track of the time.

If you are in a country with a possible terrorist threat, vary your routine and your routes to avoid repetition. Avoid publicity or association with others who may be terrorist targets. Also don't let your office or hotel staff know your schedule or plans in advance. Your schedule should be known only to your family, those traveling with you and your client or host.

In countries where rioting is a problem, the safest action is to go away from the disturbance and stay indoors. If you are in the street when a shooting takes place, lie down immediately and cover your head with your arms. Don't get up or look up until the shooting stops. Then get away as fast as possible. If you are in your hotel when the shooting starts, close the curtains and put your mattress or bed against the window. Turn out the lights and get out of the danger area.

In a country with possible unrest it is wise to register at the U.S. Embassy the first thing after arrival. The U.S. Embassy can provide limited help in certain emergency situations. Should you require medical assistance in a foreign country, a list of medical services, including English-speaking doctors can be obtained. New passports can be issued for \$42 should yours become lost or stolen. The embassy will help locate missing Americans and can offer help in times of civil unrest and natural disaster.

Be careful to avoid legal problems during your stay. In many countries there are certain things you should not photograph: bridges, military installations, public buildings, etc. Be aware of these restrictions. Avoid anything to do with illegal drugs including marijuana and cocaine. The State department reported that over 900 Americans were arrested in 1985 for violations of local narcotic laws. Seventy percent of these arrests were in Jamaica, Mexico,

the Bahamas, the Dominican Republic and West Germany.

If you are detained or arrested by the host country, ask to call your embassy. If the situation looks bad and there are onlookers, throw a handful of business cards and shout for anyone to report your problem to the U.S. Embassy. Under international conventions you have a right to call your embassy. Continue to politely request this right.

International travel offers a unique view of the world and the benefits and pleasures available should be sought after. A knowledgeable and prepared traveler recognizes that travel does pose some risks. Taking steps to reduce exposure to those risks will help make your trip more pleasurable and memorable. ●

## Suggested Travel Information Sources:

**The Safe Travel Book**, by Peter Savage; Lexington Books, 125 Spring Street, Lexington, MA 02173; (800) 235-3565.

**Lonely Planet Publications**, Embarcadero West, 112 Linden Street, Oakland, CA 94607; (415) 893-8555 or outside CA (800) 322-7333. Lonely Planet travel guides are written for those who want to explore beyond the normal tourist routes. Included are travel survival kits, trekking guides, language survival kits and the quarterly *Update* that includes the latest information on fares, restaurants, visas, bad borders and rip-offs. *Update* is available by mail order subscription.

**World Status Map**, Earl May, Editor, Dept. ASG, Box 466, Merrifield, VA 22116; (301) 564-8473. Using information from the State Dept., World Health Organization, the National Center for Disease Control, and news services world wide, the *World Status Map*, published bi-monthly, contains the latest traveler advisories for each country in the world. Reports on rioting, unrest, terrorist activity, disease outbreaks, and travel requirements are listed in a concise, single sheet for easy access. A year's subscription is \$36 for 6 issues or \$6 per issue.

**International Travel Briefing Service**, WSM Publishing Co., Dept. ASG, Box 466, Merrifield, VA 22116. For those who own or have access to an IBM PC/XT/AT or compatible computer, ITBS offers briefings with information gathered from the State Dept., daily publications, wire services and ham radio operators world-wide. Over 150 sources are used. All is reduced to a one to three page briefing for each country. The data base contains over 300 pages of vital information and is updated monthly with two floppy disks. Twelve month service is \$85. \$150 for 24 months.



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## Staff Report

**T**HOMAS L. Roubideaux was born and raised on the Rosebud Sioux Reservation in South Dakota. After completing high school he entered the Army and served four tours of duty in Vietnam.

A self-taught artist, he began the "Dau Series" of drawings of Vietnam War scenes after attending the Vietnam Memorial dedication. "Dau" means pain or sorrow in Vietnamese and the drawings represent the artist's efforts to come to terms with his war-time experiences.

Shown here are four prints from the **Dau Series: Charlie Mike, 75th Ranger ABN, NVA Sniper Team, and Hill 881.** These and the rest of the series drawings are available as unsigned prints or signed and numbered on museum

quality paper. Prints are \$8.95 each (except NVA Sniper Team which is \$9.95). Signed and numbered limited editions are \$30 each (except NVA Sniper Team which is \$35) and professionally framed limited editions are \$95 each (except NVA Sniper Team which is \$100). Order from Delta Press Ltd., Dept. ASG, 716 Harrell Street, P.O. Box 1625, El Dorado, AR 71730; (501) 862-4772. ●



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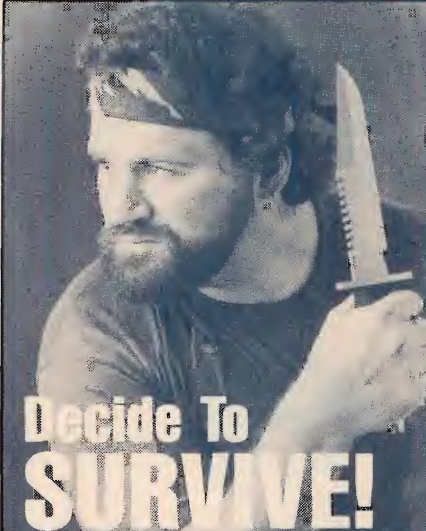
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## Protection From EMP

(Continued from page 22)

wire and screws or some similar set up.

Many government civil defense shelters are now said to have gotten the Faraday box, "foil" treatment. These shelters are covered inside with metal foil and have metal screens which cover all air vents and are connected to the metal foil. Some of these shelters probably make use of new optical fiber systems — protected by plastic pipe — to "connect" communications gear inside the room to the "outside world" without creating a conduit for EMP energy to enter the shelter.

**EMP Myth** — Another "myth" that seems to have grown up with information on EMP is that nearly all cars and trucks would be "knocked out" by EMP. In fact, according to researchers at Oak Ridge Laboratories, most cars and trucks are EMP resistant because they have parts that aren't overly sensitive to EMP and the metal car body acts like a Faraday cage to protect many of the parts that are (with the cage not grounded to the earth thanks to the vehicle's rubber tires).

While it certainly seems probable that some newer cars with a lot of IC circuits or other "computers" to control essential changes in the engine might be damaged by EMP, this is not as great a worry as one might suppose, according to these scientists. Buying spare electronic ignition parts and keeping them in a vehicle (perhaps inside a Faraday box) isn't a bad idea, but it seems probable that many vehicles will be working following the start of a nuclear war even if no precautions have been taken with them.

The only exception to this are with cars having fiberglass bodies — sorry

sports car fans — or cars on metal bridges or close to other metal stretches which might attract a massive surge of EMP.

One area of concern are explosives connected to electrical discharge wiring or designed to be set off by other electric devices. These might be set off by an EMP surge. While most survivalists don't have access to such equipment, claymore mines and other explosives would be very dangerous to be around at the start of a nuclear war if they weren't carefully stored away in a Faraday box. Ammunition, mines, grenades and the like in large quantities might be prone to damage or explosion by EMP, but in general aren't all that sensitive to EMP.

A major area of concern when it comes to EMP is nuclear reactors located in the U.S. Unfortunately, a little-known federal dictum prohibits the Nuclear Regulatory Commission from requiring power plants to withstand the effects of a nuclear war. This means that, in the event of a nuclear war, many nuclear reactors' control systems might be damaged by an EMP surge. In such a case, the core-cooling controls might become inoperable and a core melt down and breaching of the containment vessel by radioactive materials into the surrounding area might well result. If you were needing a reason not to live down wind from a nuclear reactor, this is it.

Provided you're not next door to a nuclear power plant, most of the ill effects of EMP can be overcome. EMP, like nuclear blast fallout, can be survived if you have the know-how and take a few precautions before hand.

And that is what being a survivalist is all about. ●

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\*Figures vary greatly according to the type of antenna and its size. UHF antennas have lower levels of EMP than do VHF with HF antennas having the highest levels of EMP.

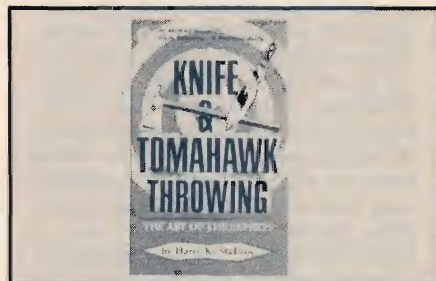




(Continued from page 11)

**U.S. Army Special Forces A-Team Vietnam Combat Manual**, by Shelby Stanton. Paladin Press, P.O. Box 1307, Boulder, CO 80306; (303) 443-7250. 275 pages, softcover; \$18 plus \$3 S&H.

This is a reprint of the Detachment Handbook issued to all Special Forces A-Teams during the Vietnam war. Operations training, camp defense construction, logistics, psyops and intelligence gathering are extensively covered. Maps and diagrams are used to illustrate important ideas. The author, Shelby Stanton served six years on active duty as a paratrooper platoon leader in the third Brigade of the 82nd Airborne Division. He later became a ranger advisor to the Royal Thai Army Special Warfare Center at Lopburi, Thailand. He also served as a Special Forces long-range reconnaissance team commander in Laos.



**Knife and Tomahawk Throwing**, The art of the experts, by Harry K. McEvoy. Tru-Balance Knife Company, 2155 Tremont Blvd. N.W., Grand Rapids, MI 49504; (616) 453-3679. 150 pages, soft cover; \$8.95 postpaid.

Harry K. McEvoy has coached and demonstrated knife and tomahawk throwing for more than 30 years. His latest book details the finer points of knife throwing and covers subjects like: building targets, the evolution of the throwing knife, the tomahawk and other throwing instruments.

Included is an interesting account of a knife thrower in World War II who saved over 100 of his fellow soldiers by killing a German sentry with an 85 foot knife throw. Another chapter recounts a wild-boar hunt using only throwing knives. The hunter had to kill a boar only 15 feet away. ●

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## Healing Words Yukon River Sojourn

(Continued from page 25)

hopeful future for the patient, and detailing positive steps along the way, the rescuer will achieve sufficient responses and will soon become a firm believer in this approach to patient management.

Receiving this kind of feedback has made "believers" out of many medics and rescuers. For example, in 1975, the late M. Erik Wright, M.D., Ph.D., conducted a six-month long experiment comparing survivability and recovery of emergency victims treated with hypnotic communication with those that were not. In a presentation before the American Society of Clinical Hypnosis, Dr. Wright stated,

"It is amazing that such an absurdly simple, relatively minor intervention, could have had such a profound effect on, first, the number of people dead on arrival, and on the recovery rates . . . the emergency personnel themselves became the proselytisers, and we had difficulty in keeping them from ruining the experiment, from telling others how well their patients came through because of the hypnosis. . ."

Dr. Wright went on to express his disappointment that once the experiment funds ran out, no more efforts were made to train emergency personnel in these procedures. Now, however, a decade later, many misconceptions about hypnosis have been laid aside. This, along with the realization that rescuers, like it or not, are already dealing with people who are in hypnosis, might mean a brighter future for this kind of training.

Until widespread programs, similar to those used for CPR, are initiated by interested parties, everyone should at least become familiar with the life-saving potential of "emergency hypnosis." ●

## REFERENCES

Cheek, David & LeCron, Leslie, *CLINICAL HYPNOTHERAPY*, Grune & Stratton, N.Y., 1968

Rossi, Ernest L., *THE PSYCHOBIOLOGY OF MIND-BODY HEALING*, Norton, N.Y., 1987.

Oyle, Irving, *THE HEALING MIND*, Celestial Arts, Millbrae, 1979.

Wright, M. Erik, & Wright, Beatrice, *CLINICAL PRACTICE OF HYPNOTHERAPY*, Guilford Press, N.Y., 1987.

(Continued from page 55)

## "HOW TO" INSTRUCTIONS

A canoe trip on the Yukon is easiest to arrange by starting in Whitehorse, Canada (reached by auto or CP Air, Pacific Western Airlines or Trans North Air). Once in Whitehorse, canoes can be purchased or rented through any of a myriad of outfitters such as Dave Loeks of Artic Edge (Box 4896 Whitehorse, Yukon, Y1A4N6, phone (403) 633-2443.

Dave, who sold us our Bindlestiff, is a former New Yorker and a graduate of Yale University's management and forestry science program. Although arrangements can be made once you arrive in Whitehorse, to save time and guarantee that you will be ready to go shortly after arrival, it makes sense to contact an outfitter ahead of time.

Outfitters are not only a source for canoes, but will provide provisions, maps and gear as well. Although Dave supplied our canoe, we brought most of our camping equipment with us and shopped in Whitehorse for other gear we needed (e.g., axe, frying pan, 16-quart pot) and for major provisions (flour, rice, beans, cereal, dried fruits and nuts, tea, hot chocolate, dried soups, etc. to last the projected six weeks). Enroute we bought additional food (cheese, eggs, fruits and vegetables) as we reached various villages every five to seven days.

If you only have two weeks, a trip from Whitehorse to Carmacks or Dawson City is quite doable and logistically the easiest. For that distance, a rented canoe makes sense; for anything farther it is probably more economical to buy a used canoe which can be sold at journey's end. In addition to Dawson City, road egress can occur at Circle City, Alaska, or at the Pipeline, the remainder of the villages are all serviced by bushplanes, usually with several daily flights. Connections can easily be made to Fairbanks or Anchorage.

If you intend to canoe the entire river over two summers, the planning involved is a bit more complicated. The Pipeline serves as a good dividing point (it is about the halfway mark), and the second summer's supplies can all be purchased in Fairbanks. Arranging transportation from Fairbanks north to the Yukon River will be the hardest part of the logistics, but if you are not a purist, you can easily set out from Fairbanks on either the Chena or Tanana Rivers — both tributaries of the Yukon.

There are several books that have been written by people who have canoed the Yukon, and they provide lots of facts about the River; while *Alaska and Canada's Yukon: a Vacation Planner*, published by the Alaska State Division of Tourism, can be a treasure chest of information for planning your trip's logistics.



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# Python

(Continued from page 26)

allows rapid and positive single-action cocking.

The heavier barrel provides good balance and reduces felt recoil. The red inset front and white outline rear sights provide faster and easier sight alignment and picture, especially in low light conditions.

The Python is available in royal blue, matte stainless and bright stainless steel finishes and with 2½-, 4-, 6- and 8-inch barrel lengths in all finishes. The target style grips on these guns are either walnut or neoprene rubber.

The built-in safety barrier in front of the hammer prevents the hammer from striking the firing pin until the trigger is fully squeezed.

Capacity is six shots. Weighing in



Although this shooter found the Python harder to control with one-handed firing, accuracy was still fairly good.

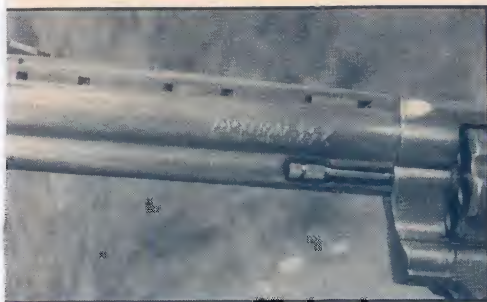


Firing fairly fast from 21 feet away, shooters obtained excellent accuracy with the Python.

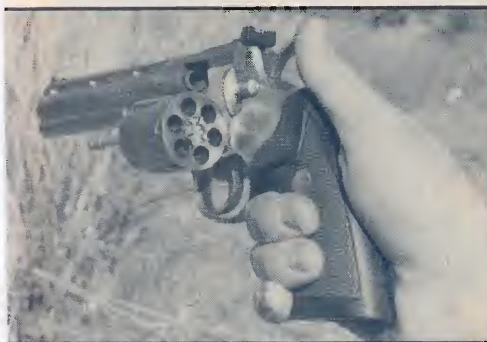


The adjustable white outline rear and red inset front sights along with non-glare top make it easier to quickly obtain the sight picture.





The ventilated rib and full length ejector rod shroud are distinctive features of the Python.



The Python has offset bolt notches in cylinder, heavy duty crane and independent ejector rod.

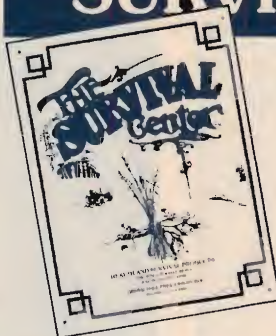
at almost 3 pounds (2 lbs., 14 ½ ounces), the Python is fairly heavy and its large size fits better in bigger hands. Height is about 5¾ inches. Overall length (6-inch barrel) is 12 inches. The added weight keeps recoil and muzzle rise down and aids in quicker sight realignment.

Suggest retail price of our test Python with 6-inch barrel, matte stainless finish and black neoprene grips is \$835. We found it in a local sporting goods store on sale for \$530, still a hefty price for a revolver, but given the Python's quality and reputation, the price is understandable.

**Test Shooting** — Firing 158-grain soft point and hollow point and 125-grain hollow point ammunition through the Python at a silhouette target 21 feet away our test shooters found the Python's action very smooth. The light single-action trigger pull, excellent sights and heavier weight improved accuracy in shooting slow aimed and rapid fire with two-hand and single-hand holds.

Python is unquestionably one of the best made and most effective revolvers on the market today. With the option of firing all types of .357 Magnum and .38 Special ammunition in it, it's an excellent choice for personal or home defense as well as the other uses mentioned. ●

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# Model 686



The "all-purpose" 686 provided very good accuracy out of the box.

(Continued from page 27)

of the 686 tames perceived recoil and offers improved balance. This is another revolver that fits bigger hands better than small ones but is still quite controllable with proper hand hold even for those with smaller hands.

The six-shot, double-action 686 is S&W's best selling revolver and many have been sold to law enforcement officers, usually the 4-inch barrel version. It is a versatile handgun, however, and S&W officials refer to it as "our all-purpose revolver."

It is available with 2½-, 4-, 6- and 8⅜-inch barrels, wood Goncalo Alves grips (with speedloader cut), red ramp on ramp front sight (4-position positive click adjustable front sight also available) and micrometer click adjustable (windage, elevation) square notch rear sight (plain or white outline). The top of the barrel and rear sight top are grooved for non-glare sighting. Finish is stainless steel.

The 686 also has the bar safety that

prevents the firing pin from striking the cartridge primer unless the trigger is pulled all the way rearward.

The weight, empty, of our test gun with its 6-inch barrel is 2 pounds, 14½ ounces. Overall height is about 6 inches, overall length is about 11½ inches.

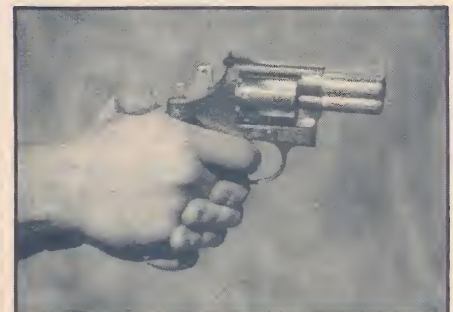
Suggested retail price for our test 686 is \$425. We saw it on sale for a little over \$300 in a local gun store. We think that's a pretty good price for a Smith & Wesson stainless revolver.

**Field Test** — We test fired the Model 686 at the same time we test shot the Python .357 Magnum and used the same paper silhouette targets placed 7 yards from shooters firing from standing positions.

Ammunition used was Federal 158-grain Hi-Power jacketed hollow point, PMC 158-grain jacketed soft point and Winchester 125-grain jacketed hollow point. One of the shooters brought

along his own 686 with 2½-inch barrel and wood grips with finger grooves for comparison.

The extra weight of both guns aided in holding down recoil and muzzle flip. There is, of course, considerably more muzzle blast and recoil with the 2½-inch 686 but we found this was not as much a problem in controlling the 2½-inch gun, due to its extra weight,



The 2½-inch barrel 686 was easier to control than lighter snub-nosed .357s.





Grooved barrel top and top of rear sight reduce glare.

as we've experienced on other snub-nosed .357s.

These guns have slightly heavier trigger pull than the Python. We did not have a trigger gauge with us but we estimated single-action trigger pull to be four to six pounds with about 12 pounds for double action pull.

Fairly fast aimed fire with single-action and rapid double-action fire from the hip gave us good results, with the 6-inch 686 providing best accuracy. Our groups were not as tight as with the Python and we attributed this to the slightly heavier 686 trigger pull

(single action) and plain square notch rear sight with no white outline.

The groups were still very good, though, for this type of shooting. This is a very accurate out-of-the-box handgun and shot placement was excellent, despite our relative unfamiliarity with this six-inch 686.

We consider the Model 686 to be among the best .357s on the market today, sturdy, well made, dependable and accurate. It's an outstanding choice for defense, hunting, law enforcement or other purposes. ●

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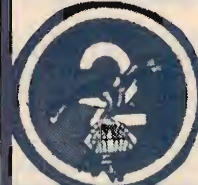
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# MAIL CALL

## MRE Dates

I am into stocking up on MREs (Meals Ready To Eat) but am puzzled as to their shelf life. The markings on the side of the packing carton make little sense. For example, the Date Packed is given as 1156, while Inspection Date is marked as 2-89. These MREs are from Right Away Foods of McAllen, Texas. Have you any idea what these mean in relation to shelf life? Also, I have some powdered eggs (egg mix) from the USDA and was wondering about their shelf life.

Henry Cocker  
San Francisco, California

As we understand it regarding the MREs, the number 1156 means that the MREs were packaged on the 115th day of 1986, the last digit in the number indicating the year of packing and the first three digits indicating the number of days into that year that the packing was done on. The 2-89 inspection date is the first inspection date for the military, which stores its MREs at cool temperatures. Stored at room temperature, most MREs will last about five years, but should be inspected regularly for signs of spoilage. If MREs are refrigerated they can last 11 years or more. The egg mix you have probably has a storage life of only about 1 to 1½ years unless it is specifically packed for long shelf life, such as with nitrogen. In that case it could last 4 to 6 years.

## ASG Articles

Every month I look forward to purchasing *American Survival Guide*. I can always expect informative, enjoyable reading. However, there was a piece in the November 1988 issue that stuck in my craw. "The Knives of Francesco Quinn" was a departure from your normal string of good articles. No offense but it seems to have been better suited in something like *People* magazine. It's fine that Mr. Quinn owns "a large collection of survival knives," but I don't really care that he "owns a number of motorcycles." He has a knife collection "only because they are useful," but only in one small paragraph are the practical applications of any of his knives mentioned. Please continue with your excellent articles in the same line as "Principles of Con-

cealment," "Survivalist Directory" and your series on terrorism, weapons and gear reviews. Semper Paratus.

D. Cohoe  
Kodiak, Alaska

The short article about Francesco Quinn, his knife collection and his interest in survival matters was a slight departure from our usual fare in ASG but you needn't worry that we're changing our format or editorial content. We will be continuing to carry our usual selection of how-to articles and news about terrorism and other survival-related subjects.

## Survival Guns

While your gun write-ups are informative and good for keeping up with the latest developments in the firearms industry, I wish you would provide more of the survivalist view point. For example, in your article on the Sterling 9mm Para Pistol and Carbine in the October 1988 issue, what makes the Sterling a good survival weapon? Why would a person choose it as his only weapon? Can spare parts be obtained for it or extra mags? What advantages does the Sterling pistol have over any other large capacity 9mm semiauto pistol? Does this firearm fill a survivalist's need or is it something for a dreamer's ego?

Ed Rydberg  
Santa Clara, California

Your points are well taken but a "survivalist's need" can be different things to different people. Admittedly, the Sterlings are more exotic weapons than many of the guns we review in this magazine, and unfortunately, for several reasons, our test shooting with these guns was limited. However, any weapon which is in service with military and police forces in more than 90 countries can't be only for a "dreamer's ego." Our firearms coverage is diverse and includes many different types and calibers. We try to review only those firearms which have some sort of survival-related purpose but this can be different things to different people. We don't like to try to tell our readers that one gun is better than another. It's up to readers to determine what is best in the way of guns for their individual needs and interests. ●

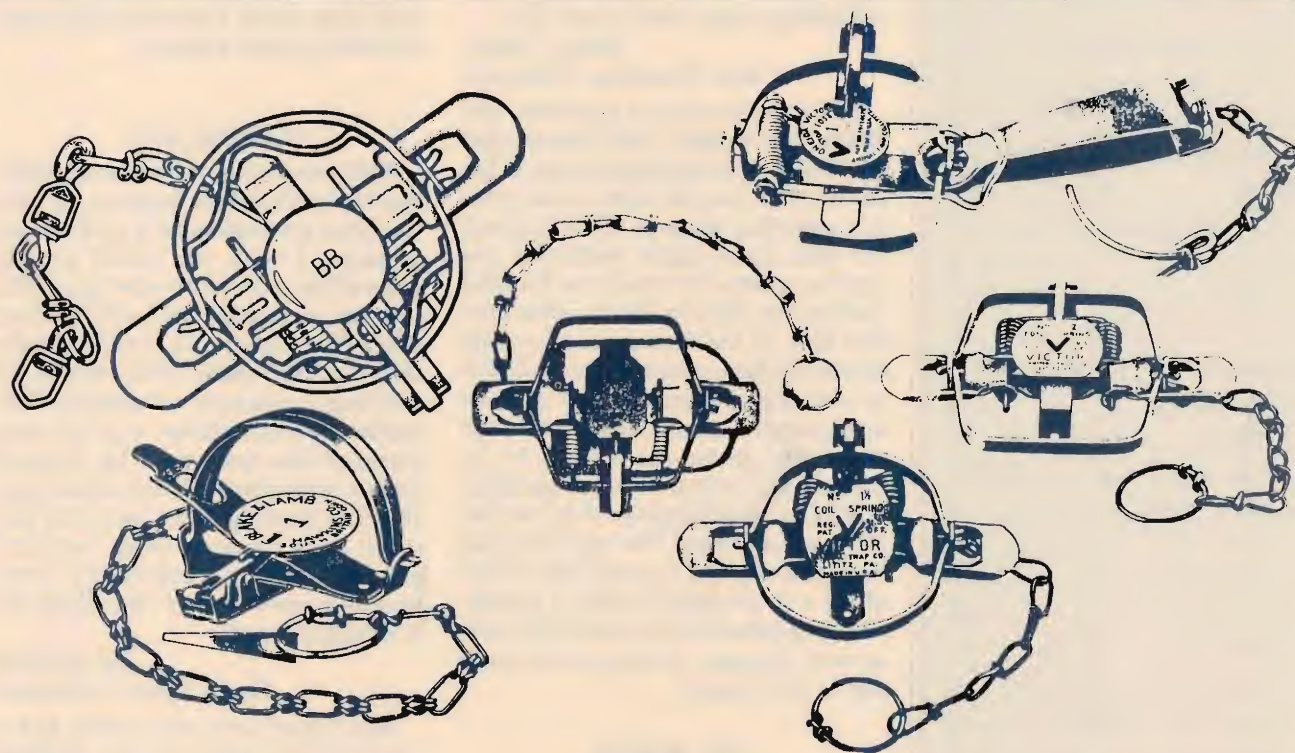


# Trapping for Survival

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*An experienced trapper could easily feed a group of  
10 with 50 game traps in a 20-mile area...*

---



*This article is an excerpt from the author's book, FUR, FOOD AND SURVIVAL, available from J. Flores Publications, Dept. ASG, P.O. Box 163001, Miami, FL 33116; (305) 559-4652. \$16.95 ppd. — The editors.*

**By Emil R. Johnson**

**T**RAPPING provides the survivalist with a noiseless, inexpensive way of obtaining both food and fur for his clothing needs. A dedicated survivalist will acquaint himself with different types of trapping equipment and methods. A dozen or so ready-made traps are a very small investment which could someday save your life.

The survivalist will also need to learn the *how* of trapping any type of animal; this usually begins with an under-

standing of where a particular animal can be found.

Half the art in taking fish and game when needed by any method depends on understanding the animal you are after, and knowing the country. To take fish and game consistently you need to know the most likely areas the animals will be found. When on fishing, camping, and canoe trips, or during evening country drives, keep your future needs for food and fur in mind and always study the land and animal movement.

The most unproductive way to go after game is to start out without knowing where each trap is going. Know the country around you and what it will supply in fur and food.

Most animals have "home ground" territory where they will live out their lives. Know where every trail, stream and feeding ground are to be found in your area.

Deer — especially the Whitetail — is the most widely distributed large game animal in the United States today and a steady source of food. Look for trails, water holes, feeding areas, or salt licks during the summer. Watch open fields during the early morning and evening hours when they feed, and locate the trails they use between feeding and bedding areas. Once you have located the whitetail it's like having meat in your freezer as they will remain in that area all of their lives.

Muskrat and beaver are always found near water. Never bother to look for



their signs in any other area. In marshland the presence of muskrat is obvious by their conical-shaped houses of from two to five feet height. On streams, rivers or large lakes the muskrat dig bank dens but they leave plenty of other signs such as rat-like droppings on every log, rock, or grass hammock in the water near their dens.

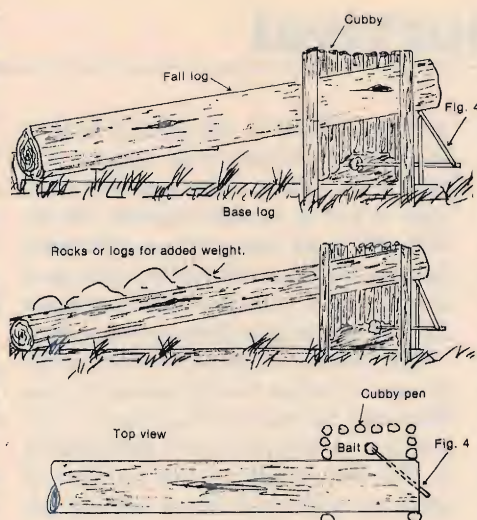
Feed beds of cattails, swamp grass, calum, and wild rice will also be found and are the favorite foods of muskrat. Their tracks are easily identified from the large webbed back feet and there is always a tail drag mark over their tracks.

The beaver is one animal who's sign cannot be mistaken for any other animal. Their dams, canals, and large houses will be obvious to even a novice. Most beaver are found on streams and very small rivers where they can build their dams but some (usually solitary old males) can be found living on large rivers or even lakes where they build bank dens. It's a good idea to be alert for cuttings near any water in beaver country. Once located you can be sure they will remain until taken or a lack of food drives them to another area.

Raccoon are found in the same general area as mink, always near water, but while the mink will always make its den near water also, the raccoon may have its den some miles away. Raccoon hunt along streams and most of their signs will be found there. Coon have regular trails where they travel and hunt for fresh water clams, crayfish, frogs, dead fish, etc. Most signs will be found on muddy stream banks along with piles of clam shells. Coon are also very fond of corn and will raid creek side corn fields. Their dens are usually in a hollow tree or log, but they will also den in rock and stump piles and use old woodchuck dens.

The mink leaves very little sign during their travels until there is snow on the ground. Their tracks resemble those of a squirrel but will be found in muddy stream banks where squirrels seldom travel. They will explore every hole, stump, and brush pile along a stream. Mink seem to prefer small streams in wilderness areas, but they usually can be found wherever muskrat are located. Fish, crayfish, frogs, muskrat, and mice make up the bulk of their diet.

Skunk and opossum are farmland animals. They can be found in most open country and will make their dens under old farm buildings, under stumps and brush piles, in hollow logs and



stone fences. Old woodchuck dens are likely places for skunk dens; opossum prefer a standing hollow tree. If woodchuck is using the den it will have a cleaned-out smooth look. Skunk are indicated by droppings near the entrance and long black and white hair will be found on brush near the den.

Skunk and opossum dens are usually located in thick brush along fields, overgrown fence rows and rock piles. These are places to look for dens. Skunk make small cup size diggings in the fields in their hunting areas also, but do not expect to locate a skunk den from its odor as it is a very clean animal in its habits. The strong odor is only present when the skunk has used its chemical spray to protect itself. Opossum have the same general habits and hunting areas as the skunk but seem to like open wooded areas more than open country.

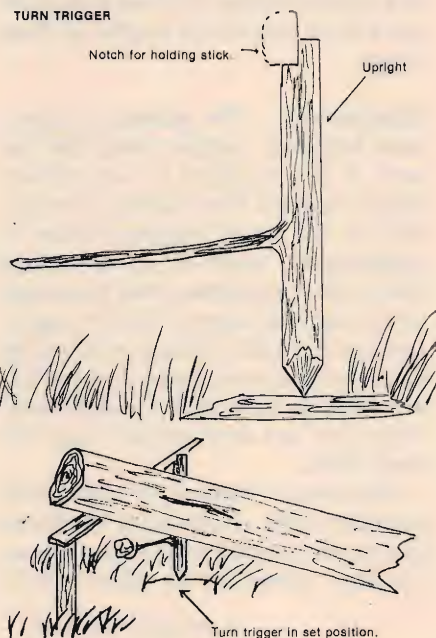
**Water Hole** — During any prospecting trip for game during the late summer and fall months, it's always a good idea to search along creek beds or along the banks of large rivers and lakes. All animals need water and you will always be able to judge what game is in any area by the signs left at water holes.

Taking game consistently depends largely on good prospecting trips during the summer and fall months. Any time spent in the woods can be used to locate game and fishing holes. Notice where animals feed, what they feed on, and where they travel. Know where the dens are in your area as nine times out of 10 some types of game will be using them. Know when such wild food as ripe acorns are found as squirrel, raccoon and deer will be feeding in those areas then. Every animal has its own habits and patterns, and

once you're familiar with those, you'll always know where to go to gather either meat or fur.

Coyote, fox and bobcat will only be covered briefly in this article as most trappers do not include them in a part-time trapline. But in wilderness areas they will be in competition with you for the local game so it is best to know enough about their habits to trap them if necessary.

The fox is found in both wilderness areas and in farm country, but is considered to be a farm country animal. They lie down in thick brush during the day and hunt open areas during the night hours. Old farms and campgrounds are always hunted by fox. They travel deer trails and old roads. Look for their tracks and droppings on old trails or along the edge of fields. Fox also like to hunt around ponds and along streams in open country.



Coyote seem to prefer more wilderness country than the fox. They travel deer trails and old logging roads. Near the den areas of small animals are good places to watch for both fox and coyote signs. The bobcat and lynx are both deep wilderness animals. They hunt through cedar swamps and along rocky ridges and travel much of the time on deer trails. Droppings may be found on trails or near cat kills, but usually they leave very little sign until there is snow on the ground.

The Black bear is not an animal you can seriously plan on as future food or fur at anytime. They usually travel through thick swamps and seldom use the same trail twice. The late fall and early winter months are the only times the black bear seems to settle down



# Trapping For Survival

to a given area where natural food is plentiful as they build up fat for the winter. During those months the black bear will form regular feeding patterns and can be hunted or trapped then.

Strangely enough, corn and oat fields are prime bear spots in late summer and early fall. During the summer months bear will visit any berry patch where the berry is ripe, but the best place to locate any bear within 20 miles is around an orchard on an abandoned farm. There are probably more bears shot and trapped in old farm orchards than in any other location. Deer kills and sometimes around country garbage dumps are places to look for bear signs. Every once in a while a black bear can become very destructive around camps or farms and knowing how to trap one is helpful at those times.

**Equipment** — The general, or farmland trappers include about 95 percent of the trappers in the country today. At some time during the summer or fall every trapper, novice or professional, needs to sit down and decide what equipment will be needed for the coming season. Trapline equipment can include clothing, pack basket, traps, lures, snares, maps, first aid kit, set making tools and miscellaneous items that are only missed when you need them.

The general trapper in most areas need not think of anything but traps, snares, set making tools, lures, etc., as his other needs can be taken care of

at home which is usually his base of operations. Usually this trapper has only a few hours, mornings and evenings to put in on his trapline, but he will still need items like a good pack basket, trowel, a .22 caliber rifle as a trapline gun, wire, hip boots and snow shoes if trapping in deep snow country.

The number of traps needed on the general trapline is determined by the kind and numbers of furbearers to be trapped. A trapper's own prospecting is the best guide to the number of traps he will need, but a word of advice is to use less traps, cover more territory and make better sets. Never cover any area with half a dozen traps when one good set will serve just as well. Remember also that well placed snares, deadfalls and homemade traps will greatly extend the area your trapline can cover. No one area will take the same number of traps as another but I'll give you some average numbers here to judge from.

If you have a lot of muskrat in your area, you can use up to five dozen rat traps, and two dozen mink traps. A dozen fox traps along with a dozen snares will serve most trappers unless they are running a fox line. Add about three dozen snares, deadfalls and homemade traps for skunk, raccoon, and opossum and you have a trapline that will keep the average trapper busy.

Trapline clothing, boots, gloves and so on, can be the same as used for hunting and fishing but should be kept free of any odors such as gas, oil, smoke; this applies especially to foot wear and gloves.

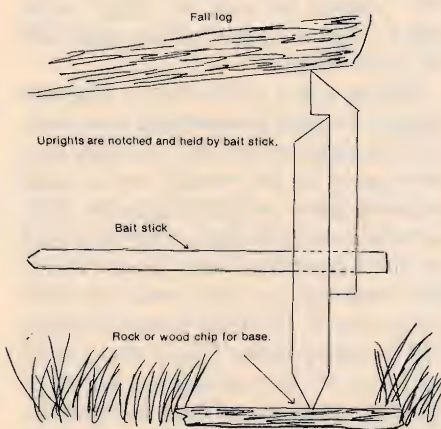
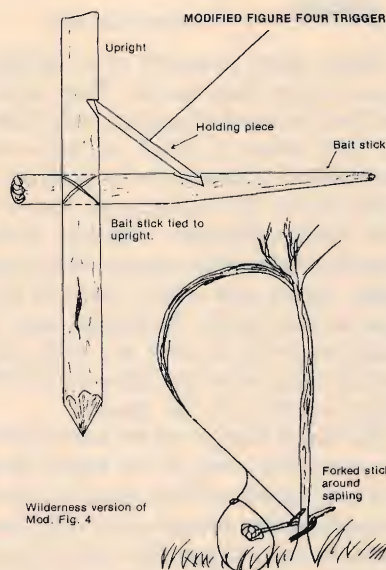
The auto or semi-wilderness trapper is usually a professional woodsman who works a summer job, guides, and dur-

ing the fall and winter, runs a trapline which will be from four to five days long and include sets for every animal from weasel to coyote. This type of trapper will need between 250 and 300 traps of all sizes. As with any trapline, the range can be extended with little or no cost by adding snares and deadfalls where they will serve as or better than a steel trap. This type of trapper usually lays his lines in two large circles, one day out, camp overnight and the next day back to home base on the other half of the circle. After a night at base camp, the routine is repeated on a second line. Usually a trapper will cover a line like this every four days, which is as long as any line should be left unattended.

The auto trapper may need more traps than the semi-wilderness trapper as he will cover a larger territory by car. The semi-wilderness trapper should plan to use more snares and deadfalls on his line to reduce the weight he needs to carry. On wilderness traplines one experienced trapper can care for and operate 200 to 300 traps, snares and deadfalls, providing he is free to put all his time into the line. In a survival situation one experienced man can easily feed a group of 10 with 50 game traps in a 20-mile area. A half dozen well made big game traps will keep two men well fed in most wilderness country.

There are only a few wilderness trappers living in the U.S. in this day and age, generally because a man can no longer make a living year round from four months on a trapline. There are also very few men who can stand the loneliness and hardship of a winter trapline alone. It is a vocation only a man who loves the solitude of the outdoors and living free would choose for himself. I wouldn't suggest that any novice try a winter in the woods until he has three or four years in on a local trapline.

For a basic survival kit that would serve a man lost in a wilderness area I would include a knife, matches or flint and steel, compass, fish line and hooks, folding cup, a half dozen small game snares, a candle, first aid kit, wire saw blade, salt, dry soup, tea, and a blanket size piece of plastic. The entire pack would be less than five pounds and would provide most woodsmen a chance to survive even an extended time in the wilderness. ●









# ASG 1989 Giveaway No. 1

**F**ill out the accompanying coupon, and include payment with subscription orders or current subscription extensions. All ASG 1989 Giveaway No. 1 entries should be printed or typewritten on the official coupon, or a reasonable facsimile from this magazine. A facsimile entry is acceptable and valid, as long as it contains information required with the subscription or extension order/entry form. The ASG Giveaway is open to any resident of the United States. Federal law requires that only U.S. citizens are eligible to receive a firearm prize. The prize winner must not be legally restricted from receiving or possessing a firearm. This contest offer is void where prohibited by law. Employees of McMullen Publishing and its subsidiaries or subordinate agencies, agents and members of their immediate families, are not eligible to enter the contest. There is a **LIMIT OF ONE ENTRY PER PERSON** for this contest. Duplicate and/or multiple

copy entires, when detected, will be disqualified and discarded. The prize winner will be selected in a random drawing of the coupons submitted for this contest. The drawing will be conducted at 2 p.m. April 28, 1989. Entries received after April 27, 1989 at 4 p.m. will be invalidated and discarded, though subscription orders will be honored by McMullen Publishing. The prize winner will be notified by telephone and/or mail within one week of the drawing. the firearm prize winner will be required to arrange with a local federally licensed firearms dealer to accept delivery of the prize. The winner will be required by the firearms dealer accepting the prize to fill out all necessary federal, state and/or local firearm purchase and/or transfer forms. To receive this prize, the winner must meet **ALL** federal, state and/or local requirements for firearms ownership. The winner must be 18 years of age or older. **NO EXCEPTIONS.**

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## PRIZE NO. 1

TZ-75 Series 88 9mm Parabellum (NATO) semi-automatic pistol from F.I.E. Corp., Dept. ASG, P.O. Box 4866, Hialeah, FL 33014; (305) 685-5966. The TZ-75 Series 88 is a redesigned, upgraded version of F.I.E.'s popular TZ-75 9mm auto pistol which itself is a variant of the famous Czech CZ-75 pistol. With a slightly different shape and heavier with stronger steel than used in the original TZ-75, the Series 88 pistol has a frame mounted sear locking safety permitting the gun to be carried "cocked and locked" with a round in the chamber. There is also a Colt style automatic firing pin locking safety in the Series 88. Its barrel swells at the muzzle, improving lock-up and overall function and facilitating threading to accommodate a muzzle compensator. Grips on this gun are rich walnut but also available are rosewood, ebony micarta, black checkered rubber, checkered, smooth or scrimshawed ivory polymer. The Giveaway gun finish is satin blue. Other finishes available are matte chrome and combination chrome frame and blue slide. The Series 88 is made by Armi Fratelli Tanfoglio SPA of Italy for F.I.E. Retail value about \$450.



## PRIZE NO. 2

The R.S.I. Field PAC Kit emergency first aid kit from NITRO-PAK Storage Foods & Emergency Supplies, Dept. ASG, 11018 E. Rosecrans Ave., Suite 300, Norwalk, CA 90650; (213) 929-4705. This compact kit provides the paramedic, E.M.T. or first responder with the equipment and supplies that are immediately needed for comprehensive emergency care at any scene. The kit has been proven through its extensive use by all phases of Emergency Medical Services, military and government agencies for more than five years. Each item in the kit has been selected for its exceptional quality and suitability in the emergency environment. The four main compartments have each been organized according to standard emergency care priorities and there is enough space remaining for individual preference or local protocols to include medications, IV. sets or other additions. The kit is housed in a detachable backpack system in bright orange which can be carried like a suitcase or worn like a pack. Retail value: \$325.



## PRIZE NO. 3

The Tigershark bowie knife from SOG Specialties, Dept. ASG, P.O. Box 1006, Santa Monica, CA 90406; (213) 451-4292. Ground from a select high carbon stainless steel custom smelted and rolled for SOG Specialties, the 9-inch long, .250-inch thick blade of the Tigershark combines handsome grind lines and custom quality rolled edge with faceted reinforced tip. Heat treated to a Rockwell hardness of 55-57, the blade is easily honed regardless of environment. The handle is molded Kraton and completely surrounds the tang. It has ribbed finger grooves and checkering to ensure a firm grip and includes a lanyard hole. The knife comes with the elegant, very strong black leather sheath shown and carries SOG Specialties' lifetime guarantee of satisfaction. Value is \$140.







Cutlery Shoppe:

# Yellowhorse Police, Spyderkey Knives

New from Spyderco...

Staff Report

**T**HE popular Spyderco Police Clipit knife is now available in a beautifully customized version by Navaho artisan David Yellowhorse.

The clip remains intact, with the custom work only on one side of the knife to keep it functional. The materials on the handle are coral (red), jet (black), mother of pearl, turquoise,

nickel silver and desert ironwood. Each knife is serial numbered with certificate of authenticity. Supply is limited. Price is \$199.95.

Also new from Spyderco are the Spyderkey keychain knives pictured here with the Yellowhorse Police model. These handy little knives are fully functional and perfect for a pocket or

keychain. Your choice of two models, mother of pearl (SP3002P) with straight edge only for \$39.95, or wood (SP3002W) with serrated edge only for \$31.95 (blades are 1½ inches).

Order these knives from the Cutlery Shoppe, Dept. ASG, 5461 Kendall Street, Boise, ID 83706; toll free phone number (800) 231-1272. ●



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